

Regulating use of the Backcountry

Tasmania and New Zealand are grappling with how to manage increased use of backcountry fishing destinations. Greg French looks at the pros and cons of placing restrictions on access.

Historically, the push for restrictions on access to backcountry areas has resulted from a perceived decline in environmental conditions. Usually this has been evident in walking track and campsite degradation, although environmental damage may also extend to other issues including over-exploitation of fish stocks.



However, almost all threats to eco-systems and bio-diversity can be adequately addressed by using management methods apart from restricting use: track hardening and duck boarding, establishing formal camping sites, catch-and-release fishing, etc. The real questions, the difficult ones, are more to do with 'wilderness values', aesthetics, solitude and other value judgements. These are extremely difficult to define and even more difficult to quantify. They also change over time.

We must ask ourselves: is recreation in backcountry areas a good thing or a bad thing? If we agree that it is essentially a good thing, it stands to reason that we should then ask ourselves how we can optimise use while protecting the environment and keeping visitation rates at tolerable levels.

HISTORY OF QUOTA SYSTEMS

The 'carrying capacity' concept was born in the USA in 1964 when J. Alan Wager published his hypothetical monograph *The Carrying Capacity of Wild Lands for Recreation*. By 1978 the US general Authorities Act had made it a legal imperative that each National Park in the USA develop visitor carrying capacities. However, it was already becoming clear that attempts to develop carrying capacities were resulting in vast amounts of money being spent in places where they were not needed and in ways

that were neither productive nor defensible. Eventually it was acknowledged that carrying capacity models were simply not working - environmental conditions continued to decline and users were unhappy about recreational outcomes.



In 1985 George H. Stankey, David N. Cole et al. published their highly respected work *The Limits of Acceptable Change (LAC) System for Wilderness Planning*. This was based on the concept that stakeholders themselves should define the amount of change they were prepared to accept and then negotiate regulations that could be phased in area by area when agreed standards were in danger of being exceeded. The first application of this process was in the Bob Marshall Wilderness Complex in 1987, though it was soon adopted throughout North America.

A review of LAC and similar processes, undertaken by Ed Krumpke and Stephen F. McCool in 1997, demonstrated that most plans still failed to achieve set goals, though this was largely attributed to introducing public involvement at the end of the management policy process rather than at the beginning.

Australia's Ellery Hamilton Smith has since noted that LAC can be unnecessarily cumbersome and advocates various streamlined processes, all of which aim to avoid pointless research and regulation and to avoid, where possible, the exclusion of people from wilderness.

THE NEW ZEALAND DEBATE

Fish and Game, New Zealand's fisheries management authority, has long pushed for restrictions on access to the backcountry. This, of course, sits uneasily with its very vocal stance that public access to private land must be guaranteed at all costs.

Looking back over my seven-year collection of *Fish & Game* magazines, I find that more than half have featured articles devoted to the issue of how to manage increased use of backcountry rivers. The general flavour of the articles gives an impression that user pressure in the backcountry is already exceeding tolerable levels and that it is increasing exponentially.

It is alarming that, once again, the management tool (restricting access via a quota or permit system) has nudged the issue (what do we want from our backcountry?) to the sidelines. This is a hallmark of failed

regulatory systems.

But one of the most disturbing aspects of the backcountry fishing debate is its genesis in blatant parochialism. The April 1997 issue of Fish & Game stressed that 'at the heart of (the agency's) concerns is the impact that increasing tourism is having on the outdoor recreational experience of New Zealand residents.'

It was also stressed that 'a controversial issue has been the increase in guided fishing on backcountry rivers.' In response to these concerns, Fish and Game instigated and substantially funded surveys (undertaken by Carl Walrond and John Hayes of the Cawthron Institute) to determine the following:

1. The social impact of tourist angling on backcountry rivers.
2. The physical impact of angling on the trout fisheries.

This leads me to worry that the issue may be fueled by people who simply want to keep outsiders off their patch. If so, then it is not something that can be solved by LAC or similar processes. Rather there are much more basic questions which need to be aired and properly debated, notably . . . Is tourism good or bad for New Zealand? Should visitors be encouraged to fish in New Zealand? Is guided fishing a good thing?

In any case, it must be understood that on public land, and most especially in World Heritage Areas, it is incumbent upon management authorities to engage all users, including those from overseas, in legitimate consultation on land use and regulation.

The main concern appears to be that encounters with other anglers in the backcountry may increase to intolerable levels. To date I have not seen hard evidence that this is actually happening, much less that it is increasing at alarming rates and/or expanding from one area to another. Walrond undertook a roving survey of two renowned backcountry waters, the Greenstone and Caples, and found that even here use was well below tolerable levels. In fact he doubted that they were exceeding optimum levels.

Unlike the situation in the USA, New Zealand has not given environmental issues a very high profile. This is mainly because trout are an introduced species (some would say vermin). Still, the politics of using hard environmental data to validate restrictions on access is well understood.

While the impact on overall fish stocks is not a significant concern (the overwhelming majority of all fish are returned unharmed; 80% for locals, 98.8% for tourists), Fish and Game is 'worried' that disturbance by anglers might put backcountry trout off the feed and make angling more difficult.

If trout are being put off their feed for significant periods this should manifest itself in a deterioration of their average size and/or condition

(even, perhaps, a decline in the actual number of fish). American research, undertaken on rivers of both high and relatively low use, suggests that such impacts are insignificant. No research of this type has been undertaken in New Zealand, though it is fair to say that the condition of fish in popular streams is generally as good or better than in the back country.

A study published in Fish & Game in November 1999 attempted to measure the catchability of fish in part of a single river in the remote Kahurangi National Park. Here it was found that two 'experienced' anglers confined to a 'standardised angling method' over four separate trials caught half as many fish on Day 2 of each trial as they did on Day 1. I have trouble with aspects of this study, particularly the small sample size, the potential for angling performance bias (they might expect the fish to be harder), and the restriction preventing the participants from experimenting with different flies. In any case, catch rates had invariably stabilised by Day 3.

More exhaustive American research shows that the catchability of backcountry fish remains at acceptable levels almost regardless of pressure. Indeed, in some waters fish are caught (and released) on average more than ten times during their lifetime.

Research of the type Fish and Game undertook in Kahurangi is extremely interesting and potentially valuable. However, the suggestion by the authors that their research should alarm anglers is premature at best. Even if it can be demonstrated that user pressure makes trout more difficult to catch, the real issue is whether this is of major concern to users.

When we wonder if evidence from such studies is sufficient to justify restrictions on access, we must be brave enough to ask: will a guarantee of relatively easy fishing be enough for you to agree to spending less time in the backcountry? Are you prepared to cop the inconvenience of booking systems and substantial fees? Do you believe that management can guarantee easy fishing?

If people are to answer these questions in any meaningful way they will need to know exactly what they are trading off for exactly what gain.



In any case it must be understood that the issue of catchability is extraordinarily complex and easily taken out of context. Regardless of fishing pressure, trout can be easier to catch when the water is high late in spring, slightly more difficult to catch when the water falls and clears during the summer, and downright frustrating in autumn when the water is both low and cold. So, in very general terms, fishing may become more difficult as the season progresses. The popular view that trout become 'educated' is dangerously simplistic.

LESSONS FROM TASMANIA

Tasmania's huge World Heritage Area (WHA) occupies about 20% of the whole state and includes showcase trout fisheries such as the Western Lakes. In 1992, the Parks and Wild-life Service produced a detailed permit/quota proposal, The Walking Track Management Strategy (WTMS), which sought to impose dramatic cuts to the overnight use of the great majority of individual walking, rafting and 4WD destinations, and across the WHA as a whole.

This document gave no weight whatsoever to social or economic consequences. It did not acknowledge trout fishing as being part of the 'Recreational Opportunity Spectrum.' It did not countenance the environmental effects of non compliance, and it failed to examine likely environmental outcomes resulting from displacement of walkers to reserves outside of the WHA.

After it was written, the WTMS was subjected to numerous rounds of public consultation at which it was overwhelmingly rejected by stakeholders. Unfortunately these rounds of consultation were undertaken simply to satisfy procedural requirements and the WTMS had not been changed when, in 1999, it was enshrined in the legally binding WHA Management Plan. The outcome of bureaucratic belligerence is that after ten years, not one aspect of the quota proposal has been implemented, the vast amount of money spent on the WTMS and its promotion has been wasted, and users remain extremely bitter about the way they have been treated. If this sounds surprising, McCool's work in the USA suggests that such muddled outcomes are altogether more likely than not.

DOING IT PROPERLY

Two things are essential to the development of effective regulations for use of the backcountry: you have to be able to get stakeholders to agree on the nature of the problem, and you have to offer a variety of solutions to the problem.

We can be assured that any method of addressing the problem will have been tried overseas and an unbiased



assessment of the successes and failures of similar systems is vital if we wish to avoid repeating costly mistakes.

Once something is assumed to be a problem (encounter rates, difficulty of catching fish, whatever) the first step is to very carefully define the problem and then to see if it is a real or perceived one. Ultimately, even if the issue seems to have a major environmental component, it will be the attitudes of stakeholders (including tourists) that really matter. It is vital at this stage that any questionnaires be designed by competent social researchers because it is very difficult to compose unbiased questions. It is equally important that questionnaires be distributed by officers who exercise absolute neutrality.



There will be differences of opinion as to what is tolerable, but if a great majority of users believe that impacts are not currently an issue, and there are no clear pointers to exponential increases in use, the matter can safely be dropped. If levels are perceived to be exceeding optimum values there is a case for further research - it may be the case that some people have already found usage to be intolerable.

The next step is to assess how stakeholders wish to address the situation and this is where bureaucracy is notoriously bad. McCool's research suggests that most government agencies find it difficult to accept that the public can decide what is good for itself.

Public awareness programs should discuss issues and options and should not threaten the outcome by raising the profile of one management strategy (such as quotas) above another, nor ridicule prospective tools (such as hookless flies, see Fish & Game April 2001).

In the case of New Zealand's backcountry streams, a range of options are available. These include expanding voluntary etiquette from catch-and-release to a willingness to fish shorter sections of river on any one day, to the use of hookless flies, that sort of thing. Even catch-and-release might prove less traumatic to fish if anglers were encouraged to use stiffer rods and carry bigger landing nets.

Quota systems are most definitely a legitimate option but managers must be honest about the impact such systems will have on freedom of access, spontaneity and the angler's wallet.

Doing nothing is another perfectly valid response.

If users accept that permit systems are a course of action worthy of further research, it is then vital that the effects of displacement be thoroughly considered because quotas applied to one or two popular waters often result in displaced people perpetuating the problem further

afield. This is a major concern because funding and managing an affordable, workable permit system across all of New Zealand's backcountry streams would be impossible.

Often stakeholders will prefer to contain the problem to one or two valleys, even if that means optimum levels in those areas will be greatly exceeded.

If it is agreed that quotas may be worthwhile, then, like any other regulatory tool, proper performance indicators need to be set and monitored. Many systems have been found wanting in this regard - there are numerous cases where management has claimed success simply on the basis that a quota system was introduced at all, irrespective of the environmental, social and economic outcomes.

LAST WORD

While quotas cannot always be avoided, there is no doubt that permit systems involve high costs, are very intrusive and are among the least acceptable of management tools. (The Tasmanian proposal would have cost \$5-10 per person per day, over and above that of infrastructure and environmental monitoring, simply to recover the cost of monitoring and issuing the permits themselves.)

A quota system will only work if stakeholders agree that it is less painful than the problem itself. On top of that, quota systems are prone to collapse whenever a significant percentage of people find it difficult to get a placement in either the area they want or a similar one nearby.

Stankey himself stresses that 'management actions other than limiting use are an equally and often more effective means of dealing with recreational management problems.'

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