

The review of the Department of Conservation's strategic plan for managing invasive weeds

Ann Thompson

Research and Development Group, The Department of Conservation, 18-32 Manners Street,
Wellington 6143, New Zealand

Corresponding author: amthompson@doc.govt.nz

Summary The Department of Conservation's Strategic Plan for Managing Invasive Weeds (Owen 1998) was the foundation management document that determined how the Department would systematically prioritise and manage environmental weeds. Twelve years later, the document is being revised with reference to the changes that have occurred in weed management. These changes include the fact that conservation resources are in high demand, there are a range of groups and agencies involved in weed management, there is a need to work even more holistically in the ecosystems we seek to conserve, and the need to consider the potential that the effects of climate change may have on the management of invasive plants.

Keywords Weeds, strategy, invasive, environmental, conservation.

INTRODUCTION

The control of environmental weeds is an essential component of the work required to achieve the mandate of the Department of Conservation (DOC) – to manage and promote the conservation of New Zealand's natural and historic heritage on behalf of, and for, the benefit of New Zealanders. While this mandate has not changed since the original weed strategic plan was written, the requirement to maximise biodiversity gains and efficiencies by developing and implementing best practice in weed control is arguably more important than ever, with research showing that the rate of new naturalisations of plant species is increasing (Howell 2008, Gatehouse 2009).

The revised strategy will provide the framework for how DOC will work to manage environmental weeds on conservation land in the next several years.

DISCUSSION

After the Strategic Plan for Managing Invasive Weeds (Owen 1998) was developed and published, environmental weed management benefitted from increased funding and a management platform that was built using research, experience in the use of various control tools and through operational expertise. Specific outputs that resulted from the strategic plan included

weed management training for staff, a weeds database (BioWeb weeds) and the development and implementation of Standard Operating Procedures for weed management. The challenge for the next 10 years will be to continue to advance our achievements against a changed background of influences, including challenging economic times, various agency responsibilities, a need to approach weed control as part of ecosystem management, and the potential effects that climate change may have on various plants.

To achieve the best outcomes on conservation land with the available resources, the Department of Conservation's internal systems are undergoing important changes. One of these changes is the development of the Natural Heritage Management System (NHMS). The objective of the NHMS programme of work is to build an integrated and scientifically sound suite of tools to enable more consistent decisions nationwide. For the weed management strategic plan, this means the 'site-led' and 'weed-led' concepts will be applied under a more goal-orientated approach. This work will help DOC to plan, prioritise, measure and monitor the weed management programme nationally, allocating resources where they will best meet agreed goals for ecosystems and species.

Environmental weed management is not confined to the Department of Conservation, with numerous agencies and interested groups involved in protecting New Zealand's natural heritage. While MAF Biosecurity is now responsible for leading and coordinating biosecurity in New Zealand, other crown agencies, Local and Regional Councils, research institutes and communities are all necessary and active participants in what is a jigsaw of weed management roles and responsibilities.

The inclusion and consultation of other groups in the development of the revised strategy indicates how a pooling of knowledge, resources and tools is required to achieve the increased coordination and collaboration necessary to improve weed management on public lands into the future. Regional Councils have been invited to comment on the draft, while specialists from scientific organisations and community groups have had their views canvassed.

The DOC Vision is that 'New Zealand is the greatest living space on Earth', with the outcome that 'New Zealanders gain environmental, social and economic benefits from healthy functioning ecosystems, from recreation opportunities, and from living our history'. This high level concept is supported through intermediate outcomes, such as 'More people engage with conservation and value its benefits' and 'The diversity of our natural heritage is maintained and restored'. These intermediate outcomes are given substance through DOC's Education and Community Outreach work that enables on the ground action as well as demonstrating the benefits and value of weed management to increase conservation results.

To this end, awareness of weed problems has increased but more involvement by communities is required to stem the tide of both the inadvertent and the deliberate spread of weeds. The principle that human influence is the major cause of widespread weed problems and therefore needs to be a greater part of stopping weeds entering conservation lands will be a central tenet of the new strategic plan. While it is important to retain the Department's focus on conservation, communities who may wish to manage weeds on land that is not Public Conservation Land are supported and empowered to do so through the Weedbusters initiative – a collaborative model supported by government agencies, regional councils and industry groups.

The strategic plan will aim to move the Department towards a more holistic and integrated approach towards managing invasive weeds. While weed control planning and operations undertaken by the Department already consider the feasibility and practicality of control, the effect of the weed on the ecosystem and the botanical and wildlife values at risk from the invasion as well as the weediness of the plant, other factors also need to be considered. These include

aspects such as habitat restoration and targeted research to best support ecosystem recovery rather than just removing the immediate and obvious weed threat from the ecosystem. This will also mean a flexible and adaptive approach to weed management work will be increasingly important.

The potential that climate change may alter the invasive abilities of some plants requires the Department to take into account likely changes to weed behaviour and to the ecosystems we seek to protect. The draft DOC climate change adaptation framework has as one of its five strategies 'Improve management and restoration of existing species and ecosystems to facilitate resilience to climate change' (Christie 2009).

To further help manage the impacts of climate change, research is planned to determine the likely impacts and magnitude of climate change on New Zealand's native biodiversity. This research will then inform the management tools and decisions that will be included in the Department's planning and management systems.

REFERENCES

- Christie, J.E. (2009). Adapting to a changing climate: a proposed framework for conservation of native biodiversity in New Zealand. Department of Conservation, Wellington, New Zealand.
- Owen, S.J. (1998). Department of Conservation Strategic Plan for managing invasive weeds. Department of Conservation, Wellington, New Zealand.
- Gatehouse, H.A.W. (2009). Ecology of the naturalisation and geographic distribution of the non-indigenous seed plant species of New Zealand. PhD thesis, Lincoln University, New Zealand.
- Howell, C.J. (2008). Consolidated list of environmental weeds in New Zealand. DOC Research and Development Series 292. (Department of Conservation, Wellington, New Zealand).