



The Environmental Weed Management Action Tool (EWeed MAT) — a new tool for regional environmental weed planning

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Environmental weeds, those species of plant which can successfully invade and reproduce in bushland areas, are a recognised threat to the biodiversity of remnant vegetation across Australia.

Growing recognition of the risk has seen the proliferation, in recent years, of a multitude of weed plans and strategies across all levels and scales of government and natural resource management planning. While these are designed to guide efforts against weeds in a strategic manner most plans fail to include practical considerations, such as where the weeds are, or are at a scale which fails to influence on-ground management.

The move towards regional natural resource management (NRM) planning has created the opportunity for environmental weeds to be tackled in a more effective way. It has created easy avenues for local knowledge on environmental weeds and their spread to be incorporated into planning processes and allows environmental weed management to be integrated with complementary activities such as the restoration, management and monitoring of natural areas. The existing mechanism for disbursement of NRM funds through the regions is also a logical way to direct funds towards weed management.



In recognition of the advantages of regional environmental weed action, the South Australian Department for Environment and Heritage, in the South East Natural Resources Management Region of South Australia, has developed a planning tool to help prioritise on ground environmental weed actions at the regional scale. The result of this process is a model called the Environmental Weed Management Action Tool (EWeed MAT). This 'tool' was designed to be practical, providing regionally specific support for decision making for investment of weed management funds in on-ground works. Through the process of development EWeedMAT has been tested and refined in two NRM regions.

A risk management approach was used as the basis of the 'tool'. This produces an Environmental Weed Management Priority Index for each substantial patch of remnant vegetation within a region based on its biodiversity values and the threat of weeds to that biodiversity. The larger the Environmental Weed Management Priority Index the higher the priority of vegetation patches for weed management.

The biological attributes identified in EWeedMAT as important for the targeted NRM regions include well recognised indicators of remnant vegetation health and significance, specifically the presence of threatened ecological communities and species and measures of vegetation diversity. Physical values of each patch which affect invasion risk (shape, size and management factors) are also included in the calculation.

The weed threat values incorporated into the 'tool' include a numerical representation of the invasiveness and potential impact of major weed species present. These figures are combined with an infestation score representing the infestation level for each weed found in a patch of bush. It should be noted that the 'tool' incorporates measures of actual weed infestation at each patch of remnant vegetation considered, that is, it is not predictive.

EWeed MAT has proven to be an effective tool for encouraging strategic management of weeds across the landscape in the regions to which it has been applied. It has broad application to the temperate regions of Australia and could easily be adapted to incorporate other threats, or values relevant to management of natural areas. The tool is relatively simple to use, it runs through a spreadsheet rather than specialised software and can easily be adapted.

The Environmental Weed Management Action Tool was developed and published by the South Australian Department for Environment and Heritage and the South East NRM Board using funding from the Australian government. Results are now being used in the two NRM regions in South Australia where it was developed and tested.

For more information

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