ROADSIDE AND LINEAR CORRIDORS – A STRATEGIC APPROACH TO MANAGEMENT

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No body wants weeds, particularly someone else's! As a result, they probably are the most legislated group of plants of any. Despite such interest, there appears to be a lack of concise assessment tools to classify the problem and provide a focused hierarchical management tool. This is particularly so given the complexity of a linear corridor. Assessment tools are useful for asset mangers to assign priorities for action. To be successful they must accommodate the complexity of non-uniform adjoining land uses, an overlay of regulation and a need to strictly contain management expenditure.

Linear corridors often contain a primary managed engineering asset with associated land which has an inherent environmental responsibility and risk. In many instances, the primary asset may require occasional intense maintenance input such as in a road or railway, or may require little physical maintenance, such as a powerline. Such corridors may consist of significant swaths of land hundreds of metres wide or the narrowest parcel just large enough to fit the asset.

Roadsides and linear corridors such as utilities and water courses present a unique management challenge. Take a small farm of 100hectares. The property has a boundary of four kilometres. That is four kilometres and probably only four neighbours with typically similar enterprises and problems. Contrast this with a typical road or rail corridor of 40 metres wide. That 100 hectare suddenly becomes a property with a boundary of 50 kilometres. It also potentially has hundreds of neighbours with often a multitude of land uses and sensitivities to weed invasion and control options. Within Victoria for instance, there are approximately 5,500 km of rail and 160,000 km of road corridor.

Unless organisations have unlimited weed management budgets, then someone is going to be given the role of deciding which is the most important patch of weeds to be controlled; or at least, it is hoped someone takes this strategic approach. The problem is, how do you decide? One approach developed by LMS is to review the impact and management of weeds from a total risk perspective. This not only identifies problems from the perspective of the utility manager but also from the perspective of the adjoining land holder. Results to date using this technique show, as expected, the importance weeds play varied depending upon the classification and notional value of the adjoining land.

Several forms of classification can be used to define the utility reserve and adjoining property. The primary assessment decision and concept is of allocating a 'dominant value' to the reserve and adjoining land i.e. which parcel of land is the more sensitive/ susceptible to weed invasion. Secondly, broad classifications such as 'agricultural', 'native vegetation' and 'domestic vegetation' can be used to classify both private property and the utility reserve. Having allocated a 'dominant value', a one to three ratings can be applied to the adjoining private property and the utility. An overall or final rating is used to allow for a situation where the utility manager needs to adopt a different level of management than may have been done if the corridor was being managed in isolation. Therefore, where private property rated more highly than the utility corridor, the overall rating or priority for action was generally higher. This indicated that the utility managers needed to ensure that their maintenance program took account of the risk of impacts on high value private property. A uniform rating across all categories generally meant that no significant change in the maintenance regime was considered necessary. This approach, while very focused at local issues, can be dovetailed with overall catchment priorities. The figures below show examples of the data recording sheets (Fig. 1)and formal report format (Fig. 2). If followed completely, the process can deliver detailed and concise management priorities.

Weed management is very much an issue of perception. The definition of 'what is a weed' in its self can be difficult, particularly in the situation of competing or adjoining land uses. In a general sense, weeds are any plants that diminish the value of an asset or require expenditure to reinstate an asset to its designated operating level. As such, they present a real cost liability to organisations in an ongoing asset maintenance sense. In addition, despite possible insignificance to the primary asset, where they threaten an adjoining and more sensitive land use, they pose a management risk to both land managers.

Loc. kms	LHS	RHS	Dominant Value	Private Property	Road Priority	Final Priority	Comment / Management Prescription / Work order

Figure 1. Field survey form

Road Section	Priority Weeds and actions	Target date
Section 1	Priority 2 - BB and ivy - Prevent the spread of weeds to the park-land	
	Action 1: Identify specific weed management program	Nov 98
	Action 2: Targeted reduction of weeds over 3 years	2001

Figure 2. Works priority report