

General SWOT Analysis of Current Policy, Community Awareness and Resourcing of Weed Management Programs in Victoria

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STRENGTHS

- Significant natural resource/biodiversity values – variable condition ranging from modified to high conservation significance
 - High percentage of these areas protected as National/State Parks or designated flora/fauna reserves.
 - Significant conservation values present on private land
- State based integrated management framework e.g. Parks Victoria, regional CALP's in place to enable a coordinated approach to planning and implementation of programs.
- Established knowledge base re flora/fauna surveys, plant distribution data etc now accessible on GIS data bases for planning of natural resource areas.
- Generally good level of knowledge and information now available for CALP areas- provide good basis for further development.
- Increased role and responsibility of local government.
- Committed and dedicated staff within agencies and community groups, with broad range of knowledge and skills.
- Growing network of community groups and volunteers undertaking conservation works.
- Growing shift in attitude and awareness of weed problem within land management agencies and broader community.

WEAKNESSES

Number of different levels within planning and implementation framework

1. Legislative Framework

Current legislation:

- Targeted weeds primarily limited to species which impact on agricultural areas.
- Very limited coverage of environmental weed species and/or new and emerging weeds.
- Lack of control on the propagation, sale and distribution of many recognised weed threats ie Proposed Victorian Pest Plant Distribution and Prevention Policy (PPDPP).

- Unable to prevent continued sale and distribution of known weeds due lack of proscription of species.
- Lack of coherent and consistent approach to legislation between various state governments and Commonwealth AQUIS legislation re importation of new plant species.
- Limited taxation incentives to offset the legitimate costs of weed management and sustainable land management programs.

2. Resources

Resources are critical to the planning and implementation of an effective weed management program. These are in the form of both human resources as well as funding and equipment. Staff resources are critical to performing a number of vital roles. The general lack of on ground staff means there are serious weaknesses in our capacity to implement programs.

management function

- Identify nature and extent of problem [requires good observation and botanical skills]
- Develop effective management strategies and plans
- Coordinate and/or supervise implementation of programs
- Monitor and evaluate programs - (major deficiency with most programs)
- Coordinate follow-up management - lack of provision or inadequate and unrealistic time frames to achieve (6-12 months).

extension function

- Liase with private land owners to ensure integrated management approach
- Identify new and emerging weed problems and initiate rapid response treatment.
- Provide advice re control options, timing, hire of equipment etc
- Ensure compliance re regional weed management obligations

Funding/resources for on ground works

- Grossly under resourced given scale and magnitude of the problem
- Lack of integrated ecosystem based management program
- Poorly defined and/or unrealistic time frames and management outcomes
 - Constrained by financial year budget cycles that do not reflect nature of the problem.
 - eg. Programs finish end of June 30th, when weeds actively growing.
- Budget available for management of only a small number of declared weeds (CaLP Act).
 - Tend to be single species focused ie. restricted to category 1 weeds e.g. blackberries
- Programs frequently lack continuity with limited scope for follow-up
- Budget priorities re management expenditure within various agencies not compatible – undermines efforts to target areas when not all agencies can allocate resources to ensure a coordinated approach.

- Funding subject to external political interference that undermines the effectiveness of ongoing programs. Recent re-allocation of Parks Victoria enviro management budget for 2 years to offset costs of NE fires in Victoria.

Program Implementation

- Largely reliant/dependent on external contractors for implementation of weed management programs
 - Highly variable standard and quality of work performed
 - Lack of coherent set of industry standards re best practice in weed control programs
 - Poorly defined or absence of Key Performance Indicators.
 - General absence or minimal monitoring and evaluation of programs
- limited staff, skills, time and/or equipment for in house treatment.
- Limited resource capacity to respond rapidly to new and emerging weeds.

Program Outcomes

Variable outcomes. May be effective in short term.

- Generally ineffective use of resources and poor outcomes due to lack of continuity and inconsistency of funding.
- Increasing reliance on herbicide as the predominant prescribed treatment.
 - Use of integrated management techniques limited by time/budget constraints.
 - tends to focus on the problem [ie. Weed] without looking at overall ecological impacts or understanding processes.
- Can have adverse outcomes re destruction of native vegetation/ habitat values on a local level
 - Loss of structural habitat for native fauna eg small birds (e.g. Blue Wren).
- Can lead to exacerbation of weed problem by allowing more intractable weeds to invade and replace treated areas (e.g. Creeping Buttercup, *Tradescantia* replacing blackberries).
 - Establishment of dense ground cover weed species can adversely affect seedling recruitment of native species which are otherwise able to regenerate beneath blackberries.
- Can have a significant adverse impact on wildlife habitat due to fragmentation of vegetation corridors where native vegetation is otherwise depleted (e.g. large scale spraying of blackberries along stream reserves).

3. Community Awareness and Involvement

- Very low profile as a political issue. Low level of awareness or understanding of seriousness of threat to generate political pressure at government level to respond to problem.

- Very limited staff and resource material available to promote awareness and education of weeds within either schools or the general community.
 - Tends to be passive eg. Posters, provision of brochures etc.
- Weed buster week - low profile – difficult to engage community at a broader level compared with Clean Up Australia day
- Inability to effectively engage all adjoining private land owners to undertake weed control works in synch with agencies/friends or volunteer groups.
- Increased reliance on community volunteers to undertake management of public land assets. Places increased pressure on committed community members to fill the void.
- Varying levels of skill and expertise within groups – overall efforts may be ineffective or misplaced if not properly organised and nurtured.
- General low priority or profile i.e. within mainstream conservation organisations.
 - Serious lack of resources to deal with it if they wanted to.

4. Communication and Co-ordination of programs

- Number of agencies with responsibilities for critical habitat corridor links and areas of significant remnant vegetation.
 - Roads - local council, Vicroads
 - Rail – Connex, Puffing Billy.
 - Power line easements – Powercorp
 - Crown land reserves – DSE (Dept. Sustainability and Environment), Committees of Management.
 - Streamside and drainage reserves – Local councils, Melbourne Water, DSE, DPI.
- Generally poor communication between various land management agencies to establish and implement a cooperative and integrated works program.
- Varying levels of commitment and resourcing to weed management works ranging from none to sporadic or ongoing programs.
- General lack of weed control works by key agencies

5. Research and Training

- Generally limited role of tertiary institutions re research in weed biology, impact and control programs.
 - Existing research capacity largely under utilized. Limited interaction with key management agencies
- Limitations re training in plant identification and performance of practical on ground control techniques.

OPPORTUNITIES

- Establish long term, coordinated and integrated management approach to weed management. Requires whole of community approach to be effective in the long term.

1. Legislative Framework

- Implement the proposed Victorian PPDPP (Pest Plant Distribution and Prevention Policy).
- Review and expand CaLP list to cover all invasive and/or threatening species.
- Provide adequate resources to effectively implement policy and enforce compliance.

2. Resources

- Establish integrated ecosystem based management program.
- Substantially increase resource levels for weed management providing med - long term investment and security of resourcing (based on a minimum 10 year Budget timeframe).
- Expand on ground staff levels to provide extension, coordination and monitoring function.
- Upgrade accreditation of contractors to increase plant identification and herbicide application skills to minimize impact on non target species [eg native vegetation] and fauna habitat.
- Establish clear set of industry standards re best practice in weed control programs, and Key Performance Indicators (KPI's).
 - Monitoring and evaluation critical to KPI's

3. Community Education and Awareness

- Establish comprehensive and pro-active community education and awareness programs.
- Conservation groups substantially raise profile of weed invasion as the key threat to biodiversity and sustainable land management.
 - Establish a high profile program compared with Salinity, Water issues.
 - Weed Buster week part of overall awareness program
 - Secure major corporate sponsors etc.
- Provide improved support, supervision and training of Friends groups, volunteers etc.
 - Requires shift in current attitude. Community input should be something that complements agencies role, not depended on as the main or sole provider of labour and resources.

- Establish, fund and implement incentive programs for private land owners to offset costs of weed management.

4. Communication and Co-ordination of programs

- Establish partnership programs with adjoining land management agencies.

Will require:

- mandatory contribution by all agencies to provide resources for integrated land/weed management.
- Improved communication to effectively coordinate programs between various land management agencies.

5. Research and Training

- Substantially increase research into weed invasion and management.

Research needs to focus on a range of issues such as:

- Understanding weed biology and ecology and associated impacts on indigenous flora and fauna.
 - Understanding the ecological role of some species in the “new ecology”. Identify and demonstrate the role some weed species now play in provision of habitat for native fauna including rare and threatened species (e.g. reliance of Powerful Owl on mature *Pittosporums* where suitable indigenous species are absent). Dictates necessity for staged program of removal and replacement over minimum 10-year time frame to minimize adverse impacts.
 - Research and assessment of weed control techniques and documentation of best practices.
 - Weed survey methodologies, monitoring and evaluation etc.
- Improved training in land management practices with greater emphasis on plant identification, understanding ecology and practical application of weed control techniques.

THREATS

- Pest animals and plants i.e. weeds recognized as the major threat to biodiversity apart from direct clearing of vegetation.
 - Potential impact and expansion of range of many species likely to be exacerbated by climate change.
- Primary threat to meeting key State and local government policy objectives relating to the sustainable management of natural resources.
- Impact on all vegetation communities.

- Some species such as Sweet Pittosporum have a broad ecological range (amplitude). Capacity to naturalize broad range of EVC's (Ecological Vegetation Classes) ranging from dry grassy forest to wet forest.
- Widespread problem with varying levels of impact and stage of development.
- A growing number of key threatening weed species have now reached mature 'Explosive' phase of development.
 - Primary source of infection of adjoining high conservation/quality bushland areas.
 - Exponential rate of spread for some species (e.g. English Ivy, Sycamore Maple – high rainfall areas such as the Dandenong Ranges).
- Number of weed species have the capacity to readily outcompete and eliminate native species as well as irreversibly change vegetation structure.
 - Seriously impact on wildlife habitat and biodiversity values.
 - Loss of landscape and amenity – significant economic implications re tourism, real estate values etc.
 - Increased threat to life and property and associated health issues.
- Significant oncost re agriculture and loss of production.
 - Impact on water flows, quality and associated costs of treatment.
- New and emerging weeds – already present as “sleepers” or recently introduced through nursery trade, agricultural practices/research (e.g. salinity control – promotion of Tall Wheat-grass).
- Current exponential rate of spread and impact of key threatening species. Failure to respond has significant implications re:
 - Ensuring the long term conservation of native flora and fauna
 - Significant economic implication re accelerating costs to community for treatment of problem.
 - Stitch in time saves nine.

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