Scientific Name: *Conium maculatum* Common name: Hemlock

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	An erect herb to 3 metres high, similar in form to *Foeniculum vulgare*. Hemlock is capable of rapid establishment on disturbed sites or where little vegetation exists. Once firmly established, hemlock precludes most other vegetation. The stems emit an offensive odour when damaged. This plant would be a significant nuisance to humans, but unlikely to create a serious physical barrier.	P & C (2001)	**ML**
2. Reduce tourism?	In Victoria, it grows mainly on moist neglected areas, usually near streams. Dense infestations may inhibit some recreational activities.	P & C (2001)	**ML**
3. Injurious to people?	"…all plant parts are toxic to humans."	Muyt (2001)	**H**
4. Damage to cultural sites?	Growth to 3 metres; in dense stands its presence would create a negative visual impact seriously affecting the aesthetics of a cultural site.	P & C (2001)	**MH**
Abiotic			
5. Impact flow?	Terrestrial species.	P & C (2001)	**L**
6. Impact water quality?	Terrestrial species.	P & C (2001)	**L**
7. Increase soil erosion?	Roots comprise a large taproot, sometimes branched, with numerous lateral roots. Dense infestations may provide some soil binding. However, it is an annual/biennial plant, can preclude most other vegetation in dense infestations, and favours moist areas such as stream banks. Possibility of moderate large scale soil movement in riparian situations.	P & C (2001)	**ML**
8. Reduce biomass?	Dense growth mostly on disturbed sites or where there is little vegetation. Biomass likely to increase.	P & C (2001)	**L**
9. Change fire regime?	Dense patches would produce a large amount of litter in late summer when the plant dies. May increase the frequency of fire risk.	P & C (2001)	**ML**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC=Riparian scrub (E); CMA=West Gippsland; Bioreg=Gippsland Plain; VH CLIMATE potential. "…growing mainly on moist neglected areas, usually near streams. Once firmly established…hemlock precludes most other vegetation." Major displacment of dominant species within the lower layers.	P & C (2001)	**MH**
(b) medium value EVC	EVC=Heathy woodland (D); CMA=Port Phillip; Bioreg=Central Victorian Uplands; VH CLIMATE potential. "Once firmly established…hemlock precludes most other vegetation." Major displacment of dominant species within the lower layers.	P & C (2001)	**MH**
(c) low value EVC	EVC=Heathy woodland (LC); CMA=West Gippsland; Bioreg=Gippsland Plain; VH CLIMATE potential. "Once firmly established…hemlock precludes most other vegetation." Major displacment of dominant species within the lower layers.	P & C (2001)	**MH**
11. Impact on structure?	Dense infestations can develop in disturbed areas and preclude most other vegetation. "Poison hemlock may act as a pioneer species quickly colonising disturbed sites and displacing natives during early succession seres." Would have a major negative impact on the 20–60% of the floral strata.	P & C (2001) Pitcher (1989)[1]	**ML**
12. Effect on threatened flora?			

Scientific Name: *Conium maculatum* Common name: Hemlock

QUESTION	COMMENTS	REFERENCE	RANKING
Fauna			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	"The presence of *C. maculatum* degrades habitat quality and could indicate a management problem on an ecological reserve." The plant is poisonous; would reduce the habitat of native fauna.	Pitcher (1989) P & C (2001)	**ML**
15. Benefits fauna?	No benefits		**H**
16. Injurious to fauna?	*C. maculatum* is poisonous to livestock, but livestock rarely eat the plant due to its offensive odour. Some risk to fauna.	Pitcher (1989) Parsons & Cuthbertson (2001)	**M**
Pest Animal			
17. Food source to pests?	The plant is poisonous. Unlikely to be a food source to pest animals.	P & C (2001)	**L**
18. Provides harbor?	Dense infestations may provide limited harbor to minor pest species such as rodents.		**ML**
Agriculture			
19. Impact yield?	Because the plant is poisonous, it can reduce yield either through the non-availability of pasture or directly through stock deaths. "Losses of cattle have been recorded in all southern States of Australia." It can reduce milk yields.	P & C (2001)	**MH**
20. Impact quality?	"It also taints milk."	P & C (2001)	**ML**
21. Affect land value?	Because of the poisonous nature of the plant, it may have a negative impact on the value of agricultural land.	P & C (2001)	**M**
22. Change land use?	"Seeds are believed to be short-lived in the soil." Infestations can be controlled readily with cultivation or by chemicals. Plant residues remain poisonous; infested areas would have to be quarantined until all plant matter is removed. Temporary change to land use.	P & C (2001) Pitcher (1989)	**M**
23. Increase harvest costs?	Not a weed of cropping. No evidence of impact on harvesting.		**L**
24. Disease host/vector?	"In the British Isles, hemlock acts as a host for the carrot fly, *Psila rosea*, when growing close to carrot fields, and is also host for the celery yellow spot virus."	P & C (2001)	**H**

[1]Pitcher, D. 1989. Conium maculatum *Poison Hemlock* The Nature Conservancy, Element Stewardship Abstract. Available http://tncweeds.ucdavis.edu/esadocs/documnts/conimac.html Last accesed 04/04/03