Impact Assessment Record

Scientific name: *Egeria densa* Planch. Common name: Dense waterweed

QUESTION	COMMENTS	RATING	CONFIDENCE
Social			
1. Restrict human access?	Can interfere with boating, had could cause drowning due to entanglement (Champion 1995). Therefore a high nuisance impeding people and vehicles.	**MH**	**MH**
2. Reduce tourism?	Can interfere with activities such as fishing, swing and boating (Parsons & Cuthbertson 2001). However evidence of major impact and visitor complaints not reported.	**MH**	**MH**
3. Injurious to people?	Poses the risk of drowning, due to entanglement (Champion 1995). This risk would be greatest at the highest biomass levels reported in February to March, when the species forms a thick mat of intertwining stems below the surface (Parsons & Cuthbertson 2001).	**MH**	**MH**
4. Damage to cultural sites?	Can interfere with infrastructure, including, irrigation works, hydro-electric outputs and water supplies (Parsons & Cuthbertson 2001).	**MH**	**MH**
Abiotic			
5. Impact flow?	An attached submerged species preferring slow moving water, reported to seriously retard flow (Parsons & Cuthbertson 2001).	**MH**	**MH**
6. Impact water quality?	Can help to stabilise shallow systems, by reducing wave action and stabilising sediment. However when the species builds up to high biomass levels, the system can collapse. Benthic anoxia leads to death of large proportions of the egeria. This can cause the wetland to flip and become turbid and dominated by phytoplankton (Champion 2002).	**H**	**M**
7. Increase soil erosion?	Can act as a semi-permeable dam, slowing flow and increasing stream depth (Champion & Tanner 2000). However during times of high flow can cause flooding and therefore increase the chance of erosion (DiTomas & Healy 2003).	**ML**	**MH**
8. Reduce biomass?	This species would either be a direct replacement or potentially increases biomass, as can from dense monospecfic stands to depths of 5m (Coffey & Clayton 1988).	**ML**	**MH**
9. Change fire regime?	Aquatic species; not present in vegetation exposed to fire.	**L**	**H**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC= Shallow Freshwater Marsh (E); CMA= Corangamite; Bioreg= Otway Plain; VH CLIMATE potential. Can form monospecific stands (Coffey & Clayton 1988). Reported displacing native submerged macrophytes (Roberts, Church & Cummins 1999)	**H**	**MH**
(b) medium value EVC	Aquatic species. All Victorian water bodies considered to comprise high value EVCs only (Weiss pers. com).	**L**	**MH**

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QUESTION	COMMENTS	RATING	CONFIDENCE
(c) low value EVC	Aquatic species. All Victorian water bodies considered to comprise high value EVCs only (Weiss pers. com).	**L**	**MH**
11. Impact on structure?	Can form monosepcific stands (Coffey & Clayton 1988). Reported displacing native submerged macrophytes (Roberts, Church & Cummins 1999)	**H**	**MH**
12. Effect on threatened flora?	Has been reported to displace native submerged macrophytes (Roberts, Church & Cummins 1999). However no specific information on threatened species.	**MH**	**M**
Fauna			
13. Effect on threatened fauna?	Reported to harbour different fish assemblages than those of native submerged macrophytes (Growns *et al* 2003). However no specific information on impact on threatened species.	**MH**	**M**
14. Effect on non-threatened fauna?	Reported to harbour different fish assemblages than those of native submerged macrophytes (Growns *et al* 2003). Therefore decrease in populations of some species with an increase in population of other species.	**MH**	**MH**
15. Benefits fauna?	Provides a major food source for black swan (*Cygnus atratus*) (Champion 2002). Fish assemblages and invertebrate species are reported living amongst it, and can act as protection from predators (Duggan *et al* 2001; Growns *et al* 2003). Therefore it provides an abundant food source for at least one species and it creates a habitat and shelters various species. However unknown specifically for native species.	**ML**	**MH**
16. Injurious to fauna?	No evidence of this reported. However it is reported to have potential to drown people through entanglement, it may therefore be able to drown animal species.	**M**	**L**
Pest Animal			
17. Food source to pests?	There are exotic fish species reported to eat significant quantities of the species that they could be used for bio-control measures, However they are not reported in Australia (Parsons & Cuthbertson 2001).	**L**	**MH**
18. Provides harbour?	Provides habitat for a fish assemblage (Growns *et al* 2003). Therefore could provide harbour for exotic fish species.	**ML**	**M**
Agriculture			
19. Impact yield?	Aquatic species, no evidence of this reported.	**L**	**M**
20. Impact quality?	Aquatic species, no evidence of this reported.	**L**	**M**
21. Affect land value?	Aquatic species, no evidence of this reported.	**L**	**M**

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QUESTION	COMMENTS	RATING	CONFIDENCE
22. Change land use?	Aquatic species, no evidence of this reported.	**L**	**M**
23. Increase harvest costs?	Can interfere with irrigation activities and block pumps, therefore increased maintenance costs (Parsons & Cuthbertson 2001).	**M**	**MH**
24. Disease host/vector?	Aquatic species, no evidence of this reported.	**L**	**M**