Weed (Scientific name)	**Arundo donax - Poaceae**
Region	
Management Area	**Sydney**
Landuse	**1. CONSERVATION AND NATURAL ENVIRONMENTS**
Assumptions	

Invasiveness	**Score**	**Total**		
Q1. What is the ability of the weed to establish amongst existing plants?		**3.0**	Seedlings establish within dense vegetation or weeds	Q1
Q2. What is the weed's tolerance to average weed management practices in the land use?		**2.0**	Between 50 and 95% of weeds survive	Q2
Q3. What is the reproductive ability of the weed in the land use?		**1.0**		Q3
(a) Time to seeding	0.0		>3 yrs/never	
(b) Annual seed production	0.0		None	
(c) Vegetative reproduction	2.0		Frequent	
Q4. How likely is long-distance dispersal (>100m) by natural means?		**1.0**		Q4
(a) Flying animals	0.0		Unlikely	
(b) Other wild animals	0.0		Unlikely	
(c) Water	2.0		Common	
(d) Wind	0.0		Unlikely	
Q5. How likely is long-distance dispersal (>100 m) by human means?		**1.0**		Q5
(a) Deliberate spread by people	2.0		Common	
(b) Accidentally by people and vehicles	0.0		Unlikely	
(c) Contaminated produce	0.0		Unlikely	
(d) Domestic/farm animals	0.0		Unlikely	
Total		**5.3**		

Impacts	Score	Total		
Q1. Does the weed reduce the establishment of desired plants?		**3.0**	> 50% reduction	Q1
Q2. Does the weed reduce the yield or amount of desired vegetation?		**4.0**	> 50% reduction	Q2
Q3. Does the weed reduce the quality of products, diversity or services available from the land use?		**3.0**	High	Q3
Q4. What is the weed's potential to restrict the physical movement of people, animals, vehicles, machinery and/or water?		**3.0**	High	Q4
Q5. What is the weed's potential to negatively affect the health of animals and/or people?		**?**	Do not know	Q5
Q6. Does the weed have major positive or negative effects on environmental health?		**2.0**		Q6
(a) food/shelter	1.0		Major negative effect	
(b) fire regime	1.0		Major negative effect	
(c) altered nutrient levels	0.0		Minor or no effect	
(d) soil salinity	0.0		Minor or no effect	
(e) soil stability	0.0		Minor or no effect	
(f) soil water table	0.0		Minor or no effect	
Total		**8.7**		
Potential Distribution				
Q1. Within the geographic area being considered, what is the percentage area of land use that is suitable for the weed?		**0.5**	<5% of land use	Q1
Comparative weed risk score		**23**		
Weed risk category		**Low**		

Control Costs	Score	Total		
Q1. How detectable is the weed?		**1**		Q1
(a) Distinguishing features	0		always distinct	
(b) Period of year shoot growth visible	0		> 8 months	
(c) Height at maturity	0		> 2 m	
(d) Pre-reproductive height in relation to other vegetation	2		below canopy	
Q2. What is the general accessibility of known infestations at the optimum time of treatment?		**1**	medium	Q2
Q3. How expensive is management of the weed in the first year of targeted control?		**5**		Q3
(a) Chemical costs/ha	4		very high (>$500/ha)	
(b) Labour costs/ha	4		very high (>$500/ha)	
(c) Equipment costs	1		low	
Q4. What is the likely level of participation from landholders/volunteers within the land use at risk?		**1.0**	medium	Q4
Total		**6.7**		

Persistence	Score	Total		
Q1. How effective are targeted management treatments applied to infestations of the weed?		**3**	low	Q1
Q2. What is the minimum time period for reproduction of sexual or vegetative propagules?		**3**	< 6 months	Q2
Q3. What is the maximum longevity of sexual or vegetative propagules?		**0**	< 2 years	Q3
Q4. How likely are new propagules to continue to arrive at control sites, or to start new infestations?		**2.0**		Q4
(a) Long-distance (>100m) dispersal by natural means	2		frequent	
(b) Long-distance (>100m) dispersal by human means	1		occasional	
Total		**7.3**		

Current distribution				
Q1. What percentage area of the land use in the geographical area is currently infested by the weed?		**0.1**	<1% of land use	Q1
Q2. What is the number of infestations, and weed distribution within the geographic area being considered?		**0.0**	restricted	Q2
Total		**0.1**		

Comparative feasibility of coordinated control score	**4**	
Feasibility of coordinated control category	**Very High**	

Management priority category	**Monitor & Protect priority sites**
Calculation of overall uncertainty score	**2%**
Response	**Submit Assessment**
Positive Impacts	

References/Other comments

Re: Sources: Many of the questions above answered as a group by: C Williams & J Vollmer - Sydney North WC, M Costigan & D Whiteman - Sydney West/Blue Mountains WC, J Hill - S
assistance of Sue Stevens.

Source and comments
Establishes vegetatively in most cases. SS Colonises disturbed ground well. Is also very competetive. http://www.botany.hawaii.edu/faculty/daehler/WRA/full_table.asp
see below
Reproduces vegetatively, sometimes forming huge clones up to 100 acres.http://www.hear.org/Pier/species/arundo_donax.htm
Rhizome fragments spread via water. http://www.botany.hawaii.edu/faculty/daehler/WRA/full_table.asp
Uses ranging from medicine to musical instruments means it has been in cultivation for a long time. http://www.nps.gov/plants/alien/fact/ardo1.htm http://www.botany.hawaii.edu/faculty/daehler/WRA/full_table.asp

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Has been found to have allelopathic effects on mustard crops. "It uses large amounts of water from its wet habitat to supply the rapid rate of growth, up to 5 cm per day in spring …" Highly flammable. http://www.botany.hawaii.edu/faculty/daehler/WRA/full_table.asp

pers. obs. SS

Very little information is available in the literature regarding the biology of A. donax. Perdue (1958) reports that arundo does not produce viable seeds in most areas where it is apparently well-adapted, although plants have been grown in scattered locations from

Rapid vegetative spread rate.
http://plants.nrcs.usda.gov/cgi_bin/topics.cgi?earl=plant_attribute.cgi&symbol=ARDO4

http://www.botany.hawaii.edu/faculty/daehler/WRA/full_table.asp

ydney Central SC, M Thrulow South-western Sydney WC and L Kaye -NPWS, with the