Recognising
Water Weeds

EARLY DETECTION SURVEY GUIDELINES FOR COMMUNITY GROUPS



WeedED Resource

Australian Government

national aquatic weeds management group

NSW GOVERNMENT | Industry & Investment

Recognising Water Weeds Early Detection Survey Guidelines for Community Groups

A method of prioritising and surveying waterways for the early detection of water weeds

Written by Fiona McPherson and Jessica Grantley

Edited by Matthew Stevens and Elissa van Oosterhout

Enquiries: Industry and Investment NSW, Grafton Primary Industries Institute, PMB 2, Grafton, NSW 2460.

Weeds Hotline 1800 680 244 or weeds@dpi.nsw.gov.au

Acknowledgements: Andrew Petroeschevsky

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Early Detection Survey Guidelines for Community Groups

Early detection is the most strategic form of water weed management, as it minimises the cost, labour and time required to control an infestation; reduces weed spread; and increases the possibility of successful containment or eradication. These Guidelines explain how to classify sites according to the likelihood and consequences of water weeds being introduced. The highest-priority sites can then be incorporated into a monitoring or inspection program.

1. Priority evaluation of waterways

Step 1 – Collate information about water weeds

Learn to identify the water weeds that threaten your local area by attending workshops or referring to weed alerts, brochures, books or websites.

Step 2 – Identify sites where water weeds could grow

Most water weeds require fresh water that is predominantly slow moving, permanent and shallow. They grow well in water with high nutrient levels. Use maps or aerial photographs of your local area and identify lakes, creeks, wetlands, farm dams, stormwater retention drains, irrigation channels, canal estates, urban drains and irrigated crops with these characteristics.

Step 3 – Identify the sites where water weeds could be introduced

Water weed are most commonly introduced to a waterway by humans and through the following vectors and activities:

- boats, boat trailers and recreational water craft
- deliberate plantings by aquarium plant enthusiasts
- eel trapping equipment
- fishing nets
- dumping of aquarium or fishpond plants
- water movement through irrigation channels
- irrigation equipment
- water movement during floods
- slashers
- livestock (cattle, horses)
- earthmoving equipment (e.g. excavators)
- wildlife (birds, mammals etc.)
- contaminated landscaping supplies (mulch, soil, gravel)
- incorrect disposal
- mistakenly growing weeds as a garden vegetable (e.g. alligator weed)
- cropping (turf production and distribution).

Identify and record the sites where these activities are likely to occur, including boat ramps; bridge crossings; waterways adjacent to parks, main roads or urban areas; and waterways in a flood plain. Using Table 1, classify each of these sites as Rare, Possible or Likely.

Table 1 Rating the likelihood of water weed introduction

Rating	Site description
Rare	Limited human access Activities and vectors applicable only in exceptional circumstances No record of past infestation Not flood prone No known infestations nearby
Possible	Waterway is somewhat accessible Activities and vectors may be applicable No record of past infestation Rare flooding No known infestations nearby
Likely	Waterway is highly accessible Activities and vectors applicable Record of past infestation Flood prone Known infestation nearby

Step 4 – Evaluate the consequences of water weed introduction

The consequences of water weed introduction will be major where there are significant environmental, economic or social assets nearby or downstream, such as:

- water supply facilities
- urban drainage systems
- fisheries
- farm dams
- national parks
- aesthetically important areas
- irrigation channels and equipment
- agricultural industries (e.g. rice or turf)
- tourism industries
- wetlands of regional or state significance
- recreational areas (e.g. swimming or boating).

The consequences may also be high at a site where there is potential for further spread by human activity.

Using Table 2, rate the consequences of water weed introduction at each site as Minor, Moderate or Major.

Table 2 Qualitative descriptions of consequences of water weed introduction

Rating	Site characteristics
Minor	No potential for further spread Growth unlikely – fast-flowing water, few ponded areas, saltwater intrusion, intermittent water supply No significant economic, environmental and social assets nearby or downstream
Moderate	Little potential for further spread Growth likely – slow-moving or ponded fresh water; permanent water supply Somewhat significant economic, environmental and social assets nearby or downstream
Major	High potential for further spread Prolific growth likely – slow-moving or ponded fresh water; permanent water supply; high nutrient loads High potential for further spread Significant economic, environmental and social assets nearby or downstream

Step 5 – Putting it all together

Once the likelihood and consequences of introduction have been determined for each site, a priority rating can be selected using Table 3.

Table 3 Matrix for prioritising survey sites

	Likelihood of introduction			
Consequences		Rare	Possible	Likely
	Minor	low priority	low priority	medium priority
	Moderate	low priority	medium priority	high priority
	Major	medium priority	high priority	high priority

2. Survey high-priority sites

Visit each site and observe the waterway and banks, checking around logs and fences where water weeds may have been trapped. Complete a site survey datasheet (page X) for each site. If you find a suspected water weed, it is essential to notify the local authority.

3. Data management

Keep a copy of each data sheet in a central location so that the survey data can be actively managed.

Site list

	Site name	Likelihood of introduction	Consequences	Rating: rare/possible/likely
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Site survey datasheet

Name*: Organisation: Phone: Email:	Send a copy to:

Site details

Water body:	Date:
Location:	
Length of water body surveyed:	
Waterway description: Please circle: creek lagoon river farm dam water storage dam wetland pond other:	
Site facilities/ structures: e.g. boat ramp, bridge, park, jetty	
Width (approx):	Depth (approx):
Photo available? Please circle: Yes No	

Water weeds

Species.	1.	2.	3.
Habitat:			
Comments:			



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