Review

High Risk Pathways & Sites Management Plan

WAP 1.1.1

NSW Invasive Species Plan. Goal 1: Exclude	
Prevent the establishment of new invasive species	**1.1 High risk species and pathways identified and managed**

Regional Weed Strategy. Aim: Preventative Weed Management	
No new weeds naturalised over the life of the RWS	**1.1.7 Identify and survey high risk areas where potential new weeds may be introduced**

The purpose of this plan is to define and identify high risk (HR) pathways and sites; prevent new weeds from establishing in the Murray through surveillance of these areas; and reduce existing weeds from spreading via HR pathways.

Pathways	The means by which a weed moves e.g. wind, water, animals and by humans.

As defined in the NSW Invasive Species Plan 2008-2015

According to the final report of the ***Pathway risk analysis for weed spread within Australia***, the sources and pathways that currently pose the greatest impact risk are "Trade in Fodder, Ornamental plants and Aquarium plants, contamination of Agricultural produce and Machinery and vehicles and natural Water movement".

HR pathways that travel through the Murray (but are not limited to): Machinery, vehicles, headers, slashers, boats, water, plants and animals. HR routes have been identified across the Murray. We hope to inspect where **HR pathways** have been if we are unable to intercept them on the following routes:

HR Pathway	Route the vector travels	
Machinery / slashers / vehicles / headers	Roads	Roads (freeways, highways, local, unsealed roads etc)
Water / Boat / Trailer	Watercourses	Rivers / Creeks / Irrigation channels
Trains / Vehicles / Animals / Humans	Infrastructure Lines	Railway corridors / Telephone lines / Power lines / Gas lines

HR sites identified:

Landscape / gravel suppliers	Pet shop/aquarium suppliers
Saleyards	Lakes/reservoirs/dams
Airports	Wetlands/billabongs/marsh areas
Rest areas	Travelling Stock Routes / Reserves
Bridge crossings / boat ramps	Public recreation areas – with high volumes of non local traffic
Nursery and garden industry retailers (including interstate retailers & suppliers)	

HR pathways & sites have been identified across the Murray region by Local Control Authorities (LCAs) and prioritised according to previous incursions and potential risk, using the following definitions.

Prioritising HR pathways and sites:

High priority pathways & sites	Historically new incursions have frequently been found along this pathway or at this site AND/OR in the LCAs opinion, potential for a new incursion to occur here in the future is high.
Medium priority pathways & sites	Historically new incursions have occasionally been found along this pathway or at this site AND/OR in the LCAs opinion, potential for a new incursion to occur here in the future is medium.
Low priority pathways & sites	Historically new incursions have rarely been found along this pathway or at this site AND/OR in the LCAs opinion, potential for a new incursion to occur here in the future is low.

Management response required at each identified HR pathway and site:

High frequency of inspections	HR pathways & sites inspected 3 or more times per annum
Medium frequency of inspections	HR pathways & sites inspected 1-2 times per annum
Low frequency of inspections	HR pathways & sites inspected annually at the discretion of the LCA

The individual stakeholder results are detailed in a separate list (WAP HR pathways & sites database) to be updated as new pathways and sites are identified; and or amended as sites are no longer deemed to be HR.

Regional Action Plan:

OBJECTIVES	ACTIONS	PERFORMANCE INDICATORS	WHO'S RESPONSIBLE
1. Review HR pathways & sites database	**1.** LCAs provide RWCC with new or old pathways & sites to be added or removed from the database	Database updated as new or old pathways & sites are identified	RWCC, LCAs
	2. Develop maps to better display identified HR pathways & sites	Maps developed & updated as needed	RWCC
2. Reduce the spread of weeds along HR pathways	**1.** Implement Regional inspection policy that ensures **consistency** for effective weed management & standardised **enforcement**	WAP 1.2.3 Regional inspection policy being implemented	RWCC, LCAs
	2. Implement Rapid Response Plan that ensures a **consistent** approach to the **management** of **new incursions** of HR species	WAP 2.2.1 Rapid response plan being implemented	RWCC, LCAs, LLS
	3. Implement New Incursion Plan – HR Species that ensures a **consistent** approach and response to the **surveillance, identification and management** of all HR species	WAP 1.2.2 NIP – HR species being implemented	RWCC, LCAs, LLS

	4. Undertake coordinated surveillance activities for HR species. Eg: AW WEDD	WEDD trialled in AW detection. Number of surveys undertaken.	LCAs, RWCC, WEDD
	5. Regional HR pathway inspections carried out (in kms) 2.1.1.1	More than 25000kms inspected under the Murray WAP by 30/06/2020	all Murray WAP partners
	6. Regional HR site inspections carried out (# sites) 2.1.1.3	More than 1000 HR sites inspected under the Murray WAP by 30/06/2020	all Murray WAP partners
	7. Install Red Guide Posts (RGP) along roadsides to **identify** weed locations & avoid further spread along our HR routes.	RGP installed as HR species are detected along our roadsides.	LCAs, LLS, RMS
	8. Implement MERI plan	WAP 4.6.1 MERI Plan being implemented	RWCC, LCAs, LLS
3. Ensure stakeholders are aware of HR pathways	**1.** Implement communication strategy that outlines major communication, extension, training & education activities	WAP 4.3.1 Communication Plan and Vehicle hygiene protocol being implemented	RWCC, LCAs, LLS

Linkages

- High Risk Pathways and Sites WAP database
- NSW Invasive Species Plan 2018-2021
- New Incursion Plan – High Risk Species WAP 1.2.2
- Regional Inspection Policy WAP 1.2.3
- NSW DPI Metadata Standards for reporting into BIS
- Sindel, B. Meulen, A. Coleman, M & Reeve, I. (2009) *Pathway risk analysis for weed spread within Australia*. Land & Water Australia.
- Rapid Response Plan WAP 2.2.1
- High Risk Species WAP 1.2.1
- Draft Murray RSWMP 2017-2022
- Draft Riverina RSWMP 2017-2022

RWCC: Regional Weed Committee Coordinator

Case Study March 2017:

Weed Eradication Detector Dogs (WEDD) trialled to detect Alligator Weed at Woomargama.

History – Alligator weed (*Alternanthera philoxeroides*) is believed to have been introduced to an artificial lake near Woomargama with other ornamental plants in the 1960s. In 1972 the area involved was approximately 2 acres with about 75% of the surface area covered by alligator weed (AW). An extensive survey was made of Mountain Creek downstream from the infestation for approximately 20 miles without any further infestation. This creek flows into the Billabong Creek which eventually via the Edward & Wakool Rivers flow into the Murray River.

In 1975 an inspection of Mountain creek to the old Hume Highway at Woomargama Village detected growth approximately 1km downstream from the lake of one or two metres in area. No other infestations were found beyond this point.

Mechanical & chemical control has occurred at this site since it was first reported in 1970. Consecutive years of nil growth have also occurred before alligator weed reappears with more vigour than before.

Present – A routine site inspection for alligator weed in February 2017 around the lake has seen no plant growth. Mountain creek however has several large infestations downstream of the lake.

In order to eradicate alligator weed from this site we need to find every last plant fragment – and that's where the Weed Eradication Detector Dogs (WEDD) come in to play.

Enter Connor and the WAP – Passing through the region after 3 extensive days undertaking Hawkweed surveys in the alpine areas, Connor and his handlers heard of the mass explosion of alligator weed and stopped in to scope the site and plan the return visit.

As a component of an OEH project funded through the NSW Weeds Action Program (WAP) *Trialling NSW WEDD to detect new incursions of state prohibited weeds,* Connor had only been trained to detect AW plant material from outside this region and had not previously been to the site. A stem fragment was sourced from the creek and placed in the tree line away from the mass infestation. Connor was instructed to "find the weed" and was indicating (that he'd found it) on top of the stem fragment in minutes.

Plan of attack – Connor to return to the site with Missy (trained in alligator weed detection also) and their handlers after the infestation has been treated. Once management are confident all plant material has been controlled the WEDD will survey the known infested area to check the success of the control and then continue downstream searching for outlier plants.

Outcome: Biosecurity risks on our high risk pathways identified so they can be eliminated.