



**ACT**  
Government

Environment, Planning and  
Sustainable Development



**Australian Government**  
**National Capital Authority**

## **ACT ALLIGATOR WEED MANAGEMENT PLAN**



**V1.0**

**10 May 2017**

# Table of contents

<b>1</b>	<b>Status report on incursion</b>	<b>4</b>
1.1	Pest details	4
1.2	Scope	4
1.3	Aim and objectives	4
1.4	Statement of agency commitment	4
1.5	Planning and coordination	4
1.6	Surveillance and delimiting	5
1.7	Tracing	5
1.8	Availability of control methods	6
<b>2</b>	<b>Containment and eradication activities</b>	<b>6</b>
2.1	Spraying and woody weed control strategy	6
2.2	Herbicide Spraying	7
2.3	Mapping	7
2.4	Triggers to review eradication	7
2.5	Situation reports production and dissemination	8
<b>3</b>	<b>Indicative Budgets</b>	<b>8</b>
3.1	Total Indicative Annual Budget for AW Program	8
<b>4</b>	<b>Communications strategy</b>	<b>9</b>
4.1	Communication strategy objectives	9
4.2	Geographical Information Systems (GIS)	9
<b>5</b>	<b>Appendices</b>	<b>10</b>
5.1	Appendix 2 AW Communication Strategy	10

## APPROVAL

<b>Approved by ACT Biosecurity Manager</b>	Stephen Hughes	<b>Approval date</b>	19/01/2017
<b>Approval period</b>	24 months	<b>Effective date</b>	10/05/2017
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## VERSION CONTROL

Amendments			
Version No. <sup>1</sup>	Date	Section	Details
<b>Draft</b>	9/12/2016	<b>ACT Govt</b>	Draft written
<b>1</b>	10/05/2017	<b>All</b>	Final plan

# 1 Status report on incursion

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## 1.1 Pest details

Alligator weed (*Alternanthera philoxeroides*) is one of the greatest threats to waterways, wetlands, floodplains and irrigation systems in Australia. As a weed that can grow both on land and in water and can tolerate a range of control methods – herbicides in particular – alligator weed has serious impacts worldwide and in Australia

Alligator weed (AW) is a notifiable pest plant under Part 2 Sec 9 (d) of the *Pest Plants and Animals Act 2005*. It is a Weed of National Significance (WONS) and it is a 'Very High' risk water weed. The ACT Weeds Strategy 2009-2019 requires immediate actions to be taken to destroy the infestation.

## 1.2 Scope

This response plan covers both ACT and National land and water bodies in the ACT.

## 1.3 Aim and objectives

The aim of this plan is to eradicate AW from the ACT within ten years.

The staged objectives of the plan are

- Lake Burley Griffin west of Commonwealth Avenue Bridge;
- Lake Ginninderra
- Yerrabi Pond
- Isabella Pond

## 1.4 Statement of agency commitment

The National Capital Authority (NCA) and the ACT Government (ACT) are committed to jointly implementing this plan to achieve the containment and ultimate eradication of AW in the ACT within 10 years.

## 1.5 Planning and coordination

To ensure tight coordination of control activities a joint NCA / ACT operational planning team will be established. The team will be comprised of the NCA Estate Officer – lakes and dam and the ACT urban lakes coordinator. Their tasks will be to:

- Meet three times a year to plan the scope and coordinated scheduling of control activities;
- Develop and deliver a communications strategy to raise community awareness of AW and the threat it poses to the environment and agriculture;
- Investigate, map and control new infestations identified through the community awareness program;
- Prepare a situation report at the completion of each spray event; and
- Prepare an annual summary report in April on the effectiveness of the annual control program and progress towards eradication and recommendations for the following year.

## 1.6 Surveillance and delimiting

AW is currently known to occur in the following water bodies in the ACT:

- Lake Burley Griffin west of Commonwealth bridge;
- Lake Ginninderra
- Yerrabi Pond
- Isabella Pond

Routine surveillance and delimiting are undertaken by a mix of specialist staff and contractors trained in the identification of AW at the same time as spraying is undertaken.

Surveillance and delimiting at Lake Burley Griffin (LBG) is undertaken from both the water and the shore zones at the same time as spraying is undertaken.

In most situations, where the density of Typha does not prevent it, surveillance on other lakes is done from the shore zone only due to improved access following successful removal of woody weeds over the last 5 years.

**Table 1** Delimiting surveys for detection – surveillance intensity and method

Location	Inspection intensity	Method
1. Lake Burley Griffin west of Commonwealth Ave bridge	Three times a year in Nov, Jan and March	Shoreline zone inspected from both the water and the shore at the same time as spraying is undertaken
2. Infested ACT urban lakes and ponds	Three times a year in Nov, Jan and March for new floating mat infestations  Nov and March for contained infestations	Shoreline zone inspected on foot at the same time as spraying is undertaken
3. Molonglo river downstream of Scrivener Dam to the Murrumbidgee River	Annually at flowering time or when actively growing	Shoreline zone inspected on foot
4. Stormwater drains, other lakes and ponds and waterway	In accordance with normal maintenance schedules	Inspected by maintenance staff trained in AW identification when these assets are sprayed, litter-picked or mown

## 1.7 Tracing

Trace back investigations into the likely source of the original introduction of AW into the ACT in 1995 discovered AW growing in domestic vegetable gardens in Canberra, where it was being grown

and used as a leafy vegetable in the mistaken belief that it was the popular Sri Lankan vegetable plant *mukunuwenna*, or sessile joyweed (*Alternanthera sessilis*)

Trace forward surveillance of Molonglo River downstream of Scrivener dam in 2015 and 2016 have found no trace of AW infestations.

## 1.8 Availability of control methods

### 1.8.1 Physical Control

Physical removal can eradicate small, new or isolated infestations though floating barrier must be deployed to contain fragments while physical removal is carried out.

### 1.8.2 Biological Control

The flea beetle (*Agasicles hygrophila*) is the primary biocontrol agent for alligator weed in warm temperate areas where it can breed up to high numbers in early summer. It has not been found to be effective in cooler climates similar to Canberra

### 1.8.3 Chemical Control

Three herbicides are registered for the control of AV for either suppressing infestations or assisting with eradication. Details are contained in the WONS AW control manual at [http://www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0015/210444/alligator-weed-control-manual-text.pdf](http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0015/210444/alligator-weed-control-manual-text.pdf) and the NSW WeedWise web site at <http://weeds.dpi.nsw.gov.au/Weeds/Details/7>

## 2 Containment and eradication activities

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### 2.1 Spraying and woody weed control strategy

Since discovering the infestation in 2014 infestations in LBG have been sprayed twice a year from the water in November and March which has been successful in containing infestations but progress in reducing the total area and number of infestations has been slow. To some extent this is due to the existence of woody weeds such as blackberries along the shorelines hindering access for surveillance and spraying.

By comparison in the ACT urban lakes and ponds, where spraying has been undertaken since 2006, the infestations have been reduced to the occasional plant. In Lake Ginninderra the total biomass has been reduced from over 1,000kg to less than 10kg. Much of the success of the urban lake control program can be attributed to a program of woody weed control conducted in conjunction with the AW spraying. This has allowed better access to the entire shoreline for detailed surveillance and spraying of small outbreaks. The shorelines of these lakes can now be walked by spray operators resulting in more complete treatment of regrowth.

It is proposed to employ the same strategy on LBG and treat woody weeds from the shore at the same time as the AW is being sprayed from the water, to gradually improve access to the LBG shoreline. The ACT Government will work with the NCA to deliver an enhanced program of woody weed control along the shorelines of Territory land to coincide with the NCA spraying program.

To progress the transition from containment to eventual eradication the spraying program will also be increased to three treatments per annum at LBG and any new floating mat infestations found in Canberra's urban lakes.

## 2.2 Herbicide Spraying

### 2.2.1 Chemicals

Foliar spraying of the above surface material on the entire infestation using:

- Stinger (Metsulfuron-methyl and Aminopyralid) 20g per 100L water for terrestrial situations only
- Metsulfuron-methyl (Brushoff) as per AVPMA Off-Label Permit 14522 at (10g) per 100L;
- Glyphosate (Roundup Biactive, Glyphosate Green or equivalent) as per label usage) at 1L per 100L water

A non-ionic, alcohol alkoxylate adjuvant (surfactants/penetrants) that are not toxic to aquatic life can also be added

### 2.2.2 Spraying program

Timing	Herbicides	Rate
Late November	Metsulfuron-methyl 600 g/kg	Handgun 10 g/100 L water
	Glyphosate (safe aquatic brands) 360 g/l	Handgun/knapsack 1L/100 L water
Late January	Glyphosate 360 g/l (safe aquatic brands)	Handgun/knapsack 10 mL/L water
March	Metsulfuron-methyl 600 g/kg	Handgun 10 g/100 L water
	Glyphosate (safe aquatic brands) 360 g/l	Handgun/knapsack 1L/100 L water

## 2.3 Mapping

To enable definition of the control area, effectively targeting of the spraying program and monitor progress, all infestations found during surveillance and sites sprayed will be mapped using the ESRI Collector App which syncs with ESRI ArcGIS On-line. Treated areas will be mapped on the Treated Weeds map and reports of new infestations on the Weeds Not Treated Map. Also map blackberry and woody weed control that is required to access all the AW infestations.

## 2.4 Triggers to review eradication

Review of the AW Response Plan by BCC will occur if:

- there is a substantial increase in the number of infested sites in the control areas;
- significant infestations are found east of Commonwealth Ave Bridge;
- any infestation is found or in Jerrabomberra Wetlands;
- the eradication program costs escalate to a level that it is considered no longer beneficial.

## 2.5 Situation reports production and dissemination

Situation reports (SITREP) will be produced at the completion of each spray event and provided to the ACT Biosecurity Manager and the NCA Manager, Lake and Dam.

# 3 Indicative Budgets

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## 3.1 Total Indicative Annual Budget for AW Program

	NCA	ACT Government
Program Management	In kind	In kind
AW surveillance and control program	\$10,000	\$5,000
Associated woody weed control	\$5,000	\$1,500
Information Services	In kind	In kind
Communication and community engagement	\$1,000	\$2,000

### TOTAL

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#### 3.1.1 Staffing

The indicative budget includes the cost for ACT and NCA staff and contractors required to undertake the surveillance and control activities associated with the AW Management Plan.

#### 3.1.2 Operating

The indicative budget provides for all consumable costs incurred to implement the AW Response Plan.

#### 3.1.3 Capital

There is no capital expenditure during the implementation of the AW Response Plan.

## **4 Communications strategy**

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### **4.1 Communication strategy objectives**

The communications strategy will seek to achieve the following objectives:

- To ensure media receive factual, up-to-date information from a credible source;
- To establish that the response is a joint program between The ACT Government and the NCA;
- To ensure there is a single, consistent message coming from the ACT Government and the NCA;
- To ensure that the community and specific ethnic groups are aware of the threat AW poses to the environment and agriculture.

The full communications strategy can be found in Appendix 1.

### **4.2 Geographical Information Systems (GIS)**

#### **4.2.1 Data Collection and mapping software**

GPS data for mapping of infested sites will be collected by surveillance/spray teams using the ESRI Collector App.

## 5 Appendices

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### 5.1 Appendix 2 AW Communication Strategy

#### Introduction

The National Capital Authority (NCA) and the ACT Government (ACT) are working together to contain and eventually eradicate AW from the Territory's lakes and waterways.

#### Background

AW (*Alternanthera philoxeroides*), is a Weed of National Significance and is one of the greatest threats to waterways, wetlands, floodplains and irrigation systems in Australia. As a weed that can grow both on land and in water and can tolerate a range of control methods – herbicides in particular – AW has serious impacts worldwide and in Australia.

Since its introduction to Australia at least 60 years ago, AW has infested many hundreds of hectares of land and water. Now we are witnessing a steady spread of this weed into previously un-infested areas, including the ACT where it was first detected 10 years ago. It is critical to contain the spread of AW, taking the opportunity to eradicate small, new or isolated outbreaks and suppress larger infestations.

AW is a declared notifiable pest plant in the ACT and its importation, propagation, cultivation and sale is an offence under the *ACT Pest Plants and Animals Act 2005*

#### Communication Objectives

- To ensure media receive factual, up-to-date information from a credible source.
- To establish that the response is a joint program between the ACT and the NCA.
- To ensure there is a single, consistent message coming from the ACT and the NCA;
- To ensure that the community and specific ethnic groups are aware of the threat AW poses to the environment and agriculture.

#### Target Audiences

Primary:

- Lake Burley Griffin Lake User Group
- Ethnic community groups who may grow the popular Sri Lankan vegetable plant *mukunuwenna*, or sessile joyweed as a salad vegetable;
- Water based recreation and sporting groups;
- Friends of Grasslands;
- Minister and politicians;
- Media.

Secondary:

- General public

#### Key Messages

- AW is a Weed of National Significance and is one of the greatest threats to waterways, wetlands, floodplains and irrigation systems in Australia. It is native to South America, where natural pests and diseases keep it in check.
- If left uncontrolled, AW can grow into large floating mats which crowd and out-compete native aquatic species, restrict light penetration and ultimately cause anaerobic water conditions. Prolific growth restricts water flows and increases sedimentation, aggravating flooding by acting as a barrier and collecting debris. Floating mats can lodge against other structures and inhibit flow further, hindering access to, and use of, the waterway. Plant fragments can move through irrigation systems to contaminate crops and pastures.
- It is sometimes grown as a leafy vegetable in the mistaken belief that it is the popular Sri Lankan vegetable plant *mukunuwenna*, or sessile joyweed (*Alternanthera sessilis*)
- AW is currently found in Lake Burley Griffin west of Commonwealth bridge; Lake Ginninderra; Yerrabi Pond and Isabella Pond.
- The National Capital Authority (NCA) and the ACT Government (ACT) are jointly implementing a coordinated AW Response Plan to achieve the containment and ultimate eradication of AW in the ACT within 10 years.

## **Tactics**

- Detailed briefing for media at an appropriate location;
- Interview with ACT Biosecurity Manager on ABC 666 / news grabs for radio;
- Ministerial media release;
- Information posted Departmental web site and EPSDD facebook page..

## **Timetable**

Media activity will commence week commencing Monday xx<sup>th</sup> February 2017, and will initially include:

- Joint NCA/ACT Government announcement launching the ACT Government/NCA joint response plan.
- Media Briefings
- Webpage active
- AW email reporting address

## **Budget**

Funding will be provided from within NCA and ACT Government resources for community engagement.

## **Evaluation**

The success of the communication will be determined by:

- The accuracy of information distributed by the media
- The timely handling and response to media enquiries
- The level of reporting of AW sightings by public and government officers.

- Sightings should be sent to [Canberra Nature Map](#) where botanists and weeds officers will confirm identification. Once sightings are confirmed they are mapped on Collector app.