

# Alligator weed

(*Alternanthera philoxeroides*)

## Guidance for land developers

### This is a guide for developers who intend to disturb soil and clear vegetation in an area where there is a known alligator weed infestation.

Alligator weed is one of the world's worst weeds. This superweed can double in spread in two months, and new infestations can quickly take hold from a mere fragment moved to another location.



Alligator weed grows on water and land. It can completely cover waterways from bank to bank and outcompete native plants, pasture and crops. Our ability to manage alligator weed is critical for the environmental and economic prosperity of the Waikato region, and neighbouring regions.

Impacts from alligator weed include:

- restriction of water flow
- increased sedimentation
- aggravated flooding
- clogging of infrastructure, e.g. on the Waikato River, alligator weed could impact eight hydro dams and water takes for municipal water, agriculture and industry
- photosensitisation in stock, leading to skin lesions, blindness, liver damage and death
- potential spread to high value conservation areas
- reduced access for recreational purposes (boating/ fishing)
- reduced habitat for native species, e.g. interference with whitebait breeding areas.



## Legislation

If a site contains alligator weed, the owner or developer of the site shall be advised in advance by Waikato Regional Council or one of its authorised agents.

Alligator weed is identified as a pest plant under the Biosecurity Act 1993 and the *Waikato Regional Pest Management Plan* (RPMP). Penalties apply to breaches of the legislation.

### Section 52 of the Biosecurity Act: Communication of pest or unwanted organism

No person shall knowingly communicate, cause to be communicated, release, or cause to be released, or otherwise spread any pest or unwanted organism except –

- a) in the course of and in accordance with a pest management plan; or
- b) as provided in an emergency regulation made under section 150; or
- c) for a scientific purpose carried out with the authority of the Minister; or
- d) as permitted either generally or specifically by a chief technical officer.

A breach of these rules create an offence under section 1540(1) of the Act.

Penalties include:

- in the case of an individual person, imprisonment for a term not exceeding 5 years, a fine not exceeding \$100,000, or both
- in the case of a corporation, a fine not exceeding \$200,000.

Spreading of alligator weed by developers could lead to a fine of up to \$200,000.



### Section 6.6 of the RPMP: Management regime - subdivision and land development

**Rule SUBD-1:** If a pest plant listed in either the exclusion, eradication or progressive containment programmes is present on a property within the Waikato region that is to be subdivided or developed, the person undertaking the subdivision or development activity must, at least 30 working days prior to the commencement of the activity, prepare and submit a Biosecurity Management Plan to Waikato Regional Council for approval. The Biosecurity Management Plan shall include and address (but may not necessarily be limited to) the following matters.

- i. A description of the soil disturbance and land development activities proposed on the site, including a timetable for these activities and any rehabilitation/vegetation works proposed on the site.
- Consider:*
- what land development activities will be occurring, e.g. levelling, creating swales, digging holes
  - what earthworks will be undertaken, e.g. using diggers to move how much soil from where to where
  - how deep will you be excavating?
- ii. A site plan of a suitable scale to identify the locations of:
    - exclusion, eradication and containment pest plants on the site waterways
    - all key pest management facilities/sites (such as wash down areas and green waste disposable sites)
    - any other relevant site information.

*You will need a decontamination area; show where this area is on a map. Consider explaining how you will decontaminate any equipment used to create soil disturbance, i.e. high pressure water sprayer, air compressor, etc. You want to consider keeping a record of any decontamination, such as taking photos, and keep a machine hygiene booklet available that can be viewed by the council.*

**Note:** No machine used for soil disturbance can be moved from the contaminated area until it has been decontaminated.

- iii. Details of procedures that will be implemented to manage pest plants on the site and prevent their spread (such as pest plant control programmes, restrictions on material exported, vehicle decontamination procedures, and short and long-term treatment of bare ground). This should also include maintenance, monitoring and reporting.

*Consider including:*

- *how you will ensure everyone on site is aware of alligator weed and what materials you'll have available to staff, e.g. identification leaflets, procedure checklists*
- *standard operating practices (SOPs), e.g. not allowing soil to be removed from site before getting authorisation from the regional council, procedures for decontamination, spray regimes, surveillance, etc.*

- iv. Response and contingency measures, including procedures to minimise adverse effects in the event that eradication and/or containment pest plants are spread on or off site as a result of the works.
- v. Procedures and timing for review and/or amendment to the Biosecurity Management Plan.
- vi. Identification of specific person(s) responsible for the implementation, operation and maintenance of the weed mitigation and management practices outlined in the Biosecurity Management Plan.

*Consider where this information will be stored and who will oversee it.*

**Rule SUBD-2:** All Biosecurity Management Plans prepared under Rule SUBD-1 shall be certified in writing by Waikato Regional Council acting in a technical certification capacity, prior to any subdivision or development works commencing.

**Rule SUBD-3:** Any changes proposed to a Biosecurity Management Plan prepared under Rule SUBD-1 shall be confirmed in writing by Waikato Regional Council acting in technical certification capacity, prior to the implementation of any of those proposed changes.

**Rule SUBD-4:** The person undertaking the subdivision or development activity shall ensure that a copy of the approved Biosecurity Management Plan, including any approved amendments, is kept onsite and the onsite copy of the Biosecurity Management Plan is updated within five working days of any amendments being approved.

**Rule SUBD-5:** At least five working days before commencement of any subdivision or development works, the person undertaking the works shall inform Waikato Regional Council of the name and contact details of an appointed representative(s) who shall be Waikato Regional Council's principal contact person for matters relating to the works.

**Rule SUBD-6:** In the event the appointed person identified in Rule SUBD-5 changes during the period of the works, the person undertaking the subdivision or development works shall immediately inform Waikato Regional Council of the change and give written notice of the new representative's name and contact details.

**Rule SUBD-7:** The person undertaking the subdivision or development works shall inform Waikato Regional Council of the commencement of the works covered by the Biosecurity Management Plan in writing at least five working days in advance to allow a pre-work site inspection to be carried out by Waikato Regional Council.

**Rule SUBD-8:** There shall be no transfer of earthen material or green waste from an infested site to an uninfested site, other than to an approved landfill facility.

1. *Contact can be made with the Waikato Regional Council biosecurity team for assistance or advice on pest plant identification prior to undertaking any land development or subdivision.*
2. *A breach of any of these rules will create an offence under section 154N(19) of the Act.*
3. *Enforcement will be in accordance with section 9 of the Plan.*
4. *Should land with any one of the identified pest plants subject to this programme be subdivided or developed, the council has the ability to recover costs for the inspection, monitoring and service delivery in accordance with section 135 of the Biosecurity Act 1993.*
5. *The occupier shall be responsible for all contracted operations related to the works carried out on the site and must ensure contractors are made aware of the content of the Biosecurity Management Plan and ensure compliance with the commitments given in the Biosecurity Management Plan.*



## Machinery hygiene

No machine used for soil disturbance can be moved off site until it has been decontaminated. The standard is no visible soil or plant matter should remain on machinery to prevent possible spread of alligator weed.

Work with the occupier to agree to a suitable washdown site:

- within or near any areas where alligator weed needs to be contained
- away from any watercourse or water body – a buffer of at least 30 metres is desirable to prevent runoff into waterways
- away from muddy areas, preferably a hardstand area or well grassed or gravelled sites
- away from potential hazards, e.g. powerlines.



Equipment used to clean machinery will depend on the type of machinery and facilities available. Cleaning can be by any one or a combination of:

- physical removal
- water pressure
- air pressure
- vacuum cleaning
- disinfection.

Be careful not to damage sensitive equipment, particularly with pressure water. Consult and comply with manufacturer recommended cleaning methods if in doubt. For general cleaning procedures:

- check the machinery inside and out for where dirt or plant material are lodged, paying particular attention to awkward areas such as the underside, radiators, between dual wheels, spare tyres, hollow sections, foot wells and bumper bars
- remove cover plates, etc, that can be quickly and easily removed and replaced
- radiator, grills and the interior of vehicles should be free of accumulations of plant materials, including seeds.

No clods of dirt or loose soil should be present after washdown. Smearred soil stains and soil firmly lodged in difficult to access areas are acceptable.

### Excavator key spots to check and clean

