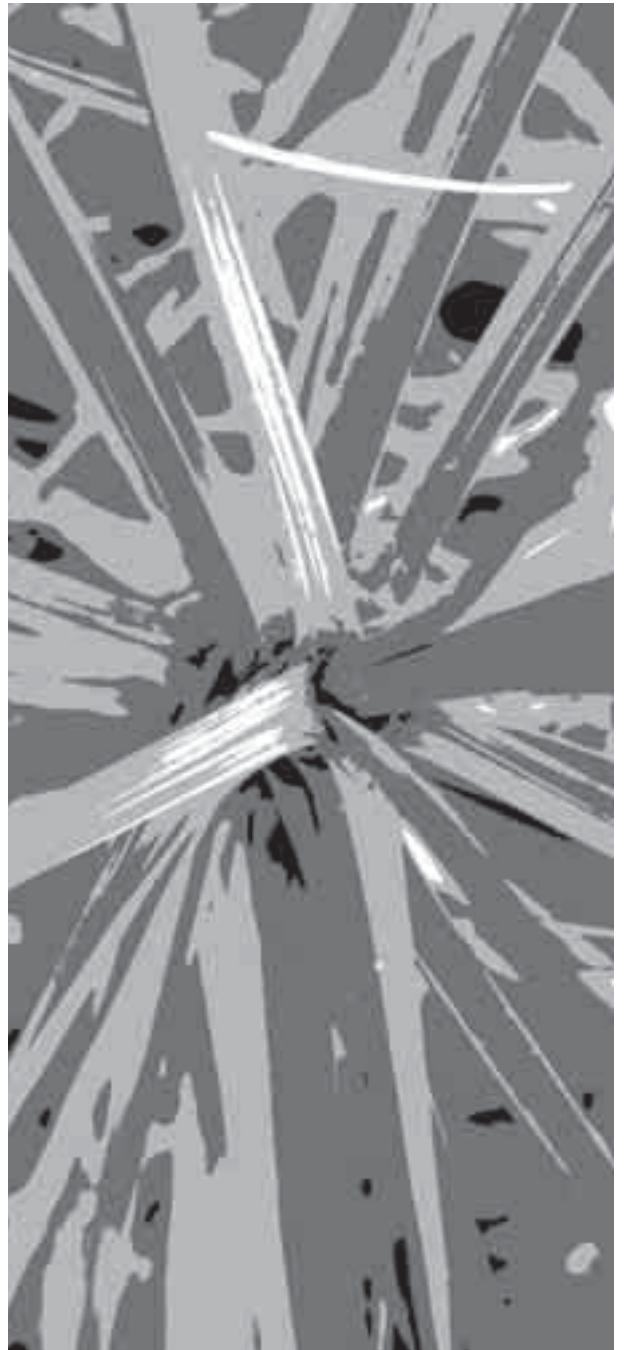


# PART II:

## PEST MANAGEMENT PROGRAMMES



# 5 PEST PLANT MANAGEMENT PROGRAMMES

## 5.1. Introduction

The following sections detail the management programmes to be applied as part of the control of individual or groups of pest plants.

With respect to individual or groups of pest plants, the ARC has determined that different pests warrant different types and levels of regional intervention. The

level of intervention adopted for one or a group of pest plants takes into account the most appropriate means for addressing the present and potential adverse impacts of the plant(s). It also recognises that the desired end results of pest management may take longer than the duration of the RPMS.

For the purpose of this RPMS and for ease of reference, the Council has grouped pest plants into different ‘designations’ as outlined in Table 5.1a below.

**Table 5.1a: Summary of Pest Plant Designations**

Category	Explanation	Chapter Reference
Total Control	<p>The ARC itself carries out, or otherwise arranges all control work for Total Control Pest Plants at no expense to the landowner/occupier.</p> <p>Species may be declared Total Control Pest Plants throughout the entire Auckland region or in specified areas only.</p> <p>All Total Control Pest Plants are also banned from sale, propagation, distribution and exhibition within the Auckland region.</p>	Chapter 6
Containment	<p>Landowners/occupiers are required to carry out the control work for Containment Pest Plants on their property.</p> <p>Species may be declared Containment Pest Plants throughout the entire Auckland region or in specified areas only.</p> <p>Landowners/occupiers may be required to control the Containment Pest Plant on their whole property (removal) or within a specified distance from any property boundary (boundary control).</p> <p>All Containment Pest Plants are also banned from sale, propagation, distribution and exhibition within the Auckland region.</p>	Chapter 7

Category	Explanation	Chapter Reference
Surveillance	<p>Surveillance Pest Plants are banned from sale, propagation, distribution and exhibition.</p> <p>Species may be declared Surveillance Pest Plants throughout the entire Auckland region or in specified areas only.</p> <p>There are no requirements for control of existing specimens.</p>	Chapter 8
Community Initiatives Programme	<p>Community groups may nominate any pest plant in the Strategy on which to carry out control work collaboratively.</p> <p>The ARC may provide regulatory backup for those species listed as Community Initiative Pest Plants.</p>	Chapter 9

Further information regarding each of the designation categories is given in the introductions of the relevant chapters of this Strategy. Pests designated in any of the categories above may also be controlled under the Council's site-led pest initiatives, vector control programmes or biological control programmes (refer sections 17, 18 and 20 of this Strategy respectively).

For each pest plant species, a management programme is specified, which includes the following:

- Description of the problem
- The pest plant designation
- The reasons for the Strategy
- Objectives
- Principal measures of achievement
- Rules

In some cases, the objectives, principal measures of achievement and Rules for all species in a designation category may be the same, in which case these items are specified at the beginning of the relevant section of the document. In other cases, the objectives, principal measures of achievement and Rules may be specific to a particular species.

## 5.2. National Programmes

The following sections outline some national pest classifications that are applicable throughout New Zealand, managed by Biosecurity NZ and MAF. These classifications do not form part of the RPMS, but are included for information purposes only.

### 5.2.1 National Pest Plant Accord

The original National Pest Plant Accord (NPPA) came into effect on 1 October 2001, and is a co-operative agreement between regional councils and government departments with biosecurity responsibilities (e.g. MAF, DoC). Under the Accord, all signatory regional councils undertake surveillance to prevent the commercial propagation, sale and/or distribution of an agreed list of pest plants. The NPPA list is dynamic, with additions made periodically via consultation with a technical advisory group, and negotiations with DoC, Biosecurity New Zealand, regional councils and ornamental

horticulture industry representatives. The most recent NPPA list was released in 2006 and is available on the Biosecurity New Zealand website: <http://www.biosecurity.govt.nz/pests-diseases/plants/accord/plant-list.htm>.

Those species listed on the NPPA at the time of printing are marked with an asterisk (\*) in Table 5.3a below.

The list of Notifiable Organisms is dynamic, with additions made periodically by MAF or Biosecurity NZ. An up-to-date list of Notifiable Organisms is available on the Biosecurity NZ website: <http://www.biosecurity.govt.nz/pest-and-disease-response/pests-and-diseases-watchlist>.

Those species declared as Notifiable Organisms at the time of printing are marked with a § in Table 5.3a below.

## 5.2.2 Notifiable Organisms

Notifiable Organisms are unwanted organisms that may or may not be present in New Zealand, which MAF considers may cause serious harm to natural and physical resources or human health, and warrant a national management programme. Any sightings of a Notifiable Organism must be reported to MAF’s Exotic Pest and Disease Hotline (phone: 0800 80 99 66), to arrange for clearance and disposal of the pest.

## 5.3. Summary of Individual Plant Designations

Table 5.3a below lists all declared Pest Plant species and indicates which designation category each species is assigned to. The table also indicates those species that are listed on the 2006 National Pest Plant Accord (NPPA), or are Notifiable Organisms, described in Section 5.2 above.

**Table 5.3a: Summary of Pest Plant Designations**

\* = Species currently listed on the 2006 National Pest Plant Accord<sup>10</sup>

§ = Species currently declared Notifiable Organisms<sup>11</sup>

# = These species are declared Surveillance Pest Plants only within the Hauraki Gulf Islands.

Common Name	Scientific Name	Total Control	Containment	Community Initiative	Surveillance
African club moss	<i>Selaginella kraussiana</i> *				✓
African feather grass	<i>Pennisetum macrourum</i> *	✓			
African love grass	<i>Eragrostis curvula</i> *				✓
African pig’s ear	<i>Cotyledon orbiculata</i>				✓
agapanthus (large forms)	<i>Agapanthus praecox</i> syn. <i>A. orientalis</i> (large forms only)				✓
alligator weed	<i>Alternanthera philoxeroides</i> *				✓
aristea	<i>Aristea ecklonii</i>				✓

<sup>10</sup> <http://www.biosecurity.govt.nz/pests-diseases/plants/accord/plant-list.htm> (accessed 29-08-06)

<sup>11</sup> <http://www.biosecurity.govt.nz/pest-and-disease-response/pests-and-diseases-watchlist> (accessed 03-05-07)

Common Name	Scientific Name	Total Control	Containment	Community Initiative	Surveillance
artillery plant	<i>Galeobdolon luteum</i> * syn. <i>Lamiastrum galeobdolon</i> *				✓
Arum lily	<i>Zantedeschia aethiopica</i> * <sup>12</sup>				✓
Asiatic knotweed	<i>Reynoutria japonica</i> * syn. <i>Fallopia japonica</i> , <i>R. sachalinensis</i> * syn. <i>F. sachalinensis</i> & hybrids	✓			
asparagus species	<i>Asparagus drepanophyllus</i> & <i>A. umbellatus</i>	✓			
Australian sedge	<i>Carex longebrachiata</i>		✓		
baccharis	<i>Baccharis halimifolia</i>				✓
balloon vine & small balloon vine	<i>Cardiospermum grandiflorum</i> * & <i>C. halicacabum</i> *	✓			
banana passionfruit	<i>Passiflora tripartita</i> * var. <i>mollissima</i> , <i>P. mixta</i> & <i>P. tarminiana</i> *			✓	✓
barberry	<i>Berberis glaucocarpa</i>				✓
bartlettina	<i>Bartlettina sordida</i>			✓	✓
Bathurst bur	<i>Xanthium spinosum</i>		✓		✓
blackberry (wild aggregates)	<i>Rubus fruticosus</i> agg.				✓
bladderwort species	<i>Utricularia arenaria</i> *, <i>U. gibba</i> *, <i>U. livida</i> * & <i>U. sandersonii</i> *				✓
blue morning glory	<i>Ipomoea indica</i> *			✓	✓
blue passion flower	<i>Passiflora caerulea</i> *				✓
blue spur flower	<i>Plectranthus ecklonii</i> & <i>P. grandis</i>				✓
bog bean	<i>Menyanthes trifoliata</i> *				✓
Bolivian fuchsia	<i>Fuchsia boliviana</i> *				✓
bomarea	<i>Bomarea caldasii</i> & <i>B. multiflora</i>				✓
boneseed	<i>Chrysanthemoides monilifera</i> *				✓
boxthorn	<i>Lycium ferocissimum</i>				✓
Brazilian pepper tree	<i>Schinus terebinthifolius</i> *				✓
broomsedge	<i>Andropogon virginicus</i>	✓			
brush cherry	<i>Syzygium australe</i>				✓#
brush wattle	<i>Paraserianthes lophantha</i>				✓
buddleia	<i>Buddleja davidii</i>				✓
bur daisy	<i>Calotis lappulacea</i>				✓
burdock	<i>Arctium minus</i>				✓
bushy asparagus	<i>Asparagus densiflorus</i> *		✓		

<sup>12</sup> Only *Zantedeschia* 'green goddess' is listed on the 2006 NPPA

Common Name	Scientific Name	Total Control	Containment	Community Initiative	Surveillance
buttercup bush	<i>Senna septemtrionalis</i>				✓#
Californian bulrush	<i>Schoenoplectus californicus</i> *				✓
Cape honey flower	<i>Melianthus major</i>				✓
Cape ivy	<i>Senecio angulatus</i>			✓	✓
Cape sundew	<i>Drosera capensis</i> *				✓
Cape tulip	<i>Homeria collina</i> * §				✓
carex	<i>Carex divulsa</i>				✓
castor oil plant	<i>Ricinus communis</i>				✓
cathedral bells	<i>Cobaea scandens</i> *	✓			
cat's claw creeper	<i>Macfadyena unguis-cati</i> *				✓
caulerpa	<i>Caulerpa taxifolia</i>				✓
Chilean flame creeper	<i>Tropaeolum speciosum</i> *				✓
Chilean glory creeper	<i>Eccremocarpus scaber</i> *				✓
Chilean needle grass	<i>Nassella neesiana</i> *	✓			
Chilean rhubarb	<i>Gunnera tinctoria</i> *				✓
clasped pondweed	<i>Potamogeton perfoliatus</i> *				✓
clematis flammula	<i>Clematis flammula</i>				✓
climbing asparagus	<i>Asparagus scandens</i> *			✓	✓
climbing dock	<i>Rumex sagittatus</i>				✓
climbing gloxinia	<i>Lophospermum erubescens</i>				✓
climbing spindle berry	<i>Celastrus orbiculatus</i> *	✓			
coast banksia	<i>Banksia integrifolia</i>				✓
coltsfoot	<i>Tussilago farfara</i> *				✓
cotoneaster	<i>Cotoneaster glaucophyllus</i> & <i>C. franchetii</i>				✓
crack willow	<i>Salix fragilis</i> *			✓	✓
Darwin's barberry	<i>Berberis darwinii</i> *				✓
devil's fig	<i>Solanum torvum</i>	✓			
devil's tail	<i>Persicaria perfoliata</i> syn. <i>Polygonum perfoliatum</i>	✓			
drooping prickly pear	<i>Opuntia monacantha</i>				✓
dusky coral pea	<i>Kennedia rubicunda</i>				✓
eel grass	<i>Vallisneria gigantea</i> * & <i>V. spiralis</i> *				✓
egeria	<i>Egeria densa</i> *	✓			✓
elaeanthus	<i>Elaeagnus x reflexa</i>			✓	✓
elephant's ear	<i>Alocasia macrorrhiza</i> syn. <i>A. brisbanensis</i>				✓
English ivy	<i>Hedera helix</i> subsp. <i>helix</i>				✓

Common Name	Scientific Name	Total Control	Containment	Community Initiative	Surveillance
false tamarisk	<i>Myricaria germanica</i> *				✓
fire tree	<i>Myrica faya</i> *				✓
firethorn	<i>Pyracantha angustifolia</i> *				✓
Formosa lily	<i>Lilium formosanum</i>				✓
fringed water lily	<i>Nymphoides peltata</i> *				✓
German ivy	<i>Senecio mikanioides</i> syn. <i>Delairea odorata</i>			✓	✓
giant hogweed	<i>Heracleum mantegazzianum</i> *				✓
giant reed	<i>Arundo donax</i> *			✓	✓
goat's rue	<i>Galega officinalis</i>				✓
gorse	<i>Ulex</i> spp.		✓	✓	✓
great reedmace	<i>Typha latifolia</i> *	✓			
green cestrum	<i>Cestrum parqui</i> *	✓			
grey willow*	<i>Salix cinerea</i> *			✓	✓
Guinea grass	<i>Panicum maximum</i> *				✓
gypsywort	<i>Lycopus europaeus</i>				✓
hawkweed	All <i>Hieracium</i> * spp.				✓
hawthorn	<i>Crataegus monogyna</i>				✓
heather*	<i>Calluna vulgaris</i> * (excluding double flowered cultivars)				✓
hemlock	<i>Conium maculatum</i>				✓
Himalayan honeysuckle	<i>Leycesteria formosa</i>			✓	✓
hornwort	<i>Ceratophyllum demersum</i> *				✓
horsetail	All <i>Equisetum</i> * spp.				✓
houttuynia	<i>Houttuynia cordata</i> *	✓			
hydrilla	<i>Hydrilla verticillata</i> *				✓
iceplant	<i>Carpobrotus edulis</i> * & hybrids				✓
Italian arum	<i>Arum italicum</i>				✓
Italian jasmine	<i>Jasminum humile</i> *				✓
Japanese honeysuckle	<i>Lonicera japonica</i> *			✓	✓
Japanese spindle tree	<i>Euonymus japonicus</i> *				✓
jasmine	<i>Jasminum polyanthum</i>			✓	✓
Johnson grass	<i>Sorghum halepense</i> §				✓
kangaroo acacia	<i>Acacia paradoxa</i>				✓
khasia berry	<i>Cotoneaster simonsii</i> *				✓
kudzu vine	<i>Pueraria montana</i> syn. <i>P. lobata</i>	✓			
lagarosiphon, oxygen weed	<i>Lagarosiphon major</i> *				✓

Common Name	Scientific Name	Total Control	Containment	Community Initiative	Surveillance
lantana	<i>Lantana camara</i> *	✓			✓
lizard's tail	<i>Saururus cernuus</i>				✓
lodgepole pine	<i>Pinus contorta</i> *				✓
Madeira vine	<i>Anredera cordifolia</i> *	✓		✓	✓
male fern	<i>Dryopteris filix-mas</i>				✓
Manchurian wild rice	<i>Zizania latifolia</i> *	✓			
marshwort	<i>Nymphoides geminata</i> *	✓			
Mexican daisy	<i>Erigeron karvinskianus</i> *				✓
Mexican feather grass	<i>Nassella tenuissima</i> *	✓			
Mexican water lily	<i>Nymphaea mexicana</i> *				✓
Mickey Mouse plant	<i>Ochna serrulata</i> *				✓
mile-a-minute	<i>Dipogon lignosus</i> *			✓	✓
mist flower	<i>Ageratina riparia</i>				✓
monkey apple	<i>Acmena smithii</i> * syn. <i>Syzygium smithii</i> *			✓	✓
montbretia	<i>Crocoshia x crocosmiiflora</i>				✓
Montpellier broom	<i>Teline monspessulana</i>				✓
moth plant	<i>Araujia sericifera</i> * syn. <i>Araujia hortorum</i> *		✓	✓	✓
nardoo	<i>Marsilea mutica</i>				✓
nassella species	<i>Nassella</i> * spp.				✓
nassella tussock	<i>Nassella trichotoma</i> *	✓			
needle grass	<i>Austrostipa rudis</i>	✓			
nodding thistle	<i>Carduus nutans</i>		✓		
Noogoora bur	<i>Xanthium occidentale</i>				✓
Norfolk Island hibiscus	<i>Lagunaria patersonii</i>				✓
nutgrass	<i>Cyperus rotundus</i>				✓
old man's beard	<i>Clematis vitalba</i> *	✓			
oxylobium	<i>Callistachys lanceolata</i>				✓
palm grass	<i>Setaria palmifolia</i>			✓	✓
pampas grass	<i>Cortaderia jubata</i> * & <i>C. selloana</i> *			✓	✓
paperbark poplar	<i>Melaleuca quinquenervia</i>				✓
parrot's feather	<i>Myriophyllum aquaticum</i> *				✓
<i>Pennisetum</i> species (except kikuyu grass and pearl millet)	All <i>Pennisetum</i> * spp. (except <i>P. clandestinum</i> & <i>P. glaucum</i> )				✓
perennial nettle	<i>Urtica dioica</i>				✓
periwinkle	<i>Vinca major</i>				✓

Common Name	Scientific Name	Total Control	Containment	Community Initiative	Surveillance
phoenix palm	<i>Phoenix canariensis</i>				✓
phragmites	<i>Phragmites australis</i> *				✓
pitted crassula	<i>Crassula multicava</i> *				✓
plectranthus	<i>Plectranthus ciliatus</i> *				✓
plumeless thistle	<i>Carduus acanthoides</i>				✓
Port Jackson fig	<i>Ficus rubiginosa</i> *				✓
privet	<i>Ligustrum lucidum</i> * & <i>L. sinense</i>			✓	✓
purple loosestrife	<i>Lythrum salicaria</i> *	✓			
pyp grass	<i>Ehrharta villosa</i> *				✓
Queensland poplar	<i>Homalanthus populifolius</i> *				✓
ragwort	<i>Senecio jacobaea</i>		✓	✓	✓
reed sweet grass	<i>Glyceria maxima</i>				✓
rhamnus	<i>Rhamnus alaternus</i> *	✓	✓	✓	✓
rhus tree	<i>Toxicodendron succedanea</i> syn. <i>Rhus succedanea</i>				✓
rough tree fern	<i>Cyathea cooperi</i>				✓
royal fern	<i>Osmunda regalis</i> *	✓			
saffron thistle	<i>Carthamus lanatus</i>				✓
<i>Sagittaria</i> species	All <i>Sagittaria</i> * <sup>13</sup> spp. (except <i>S. teres</i> )	✓			
salvinia	<i>Salvinia molesta</i> *				✓
scrambling lily	<i>Geitonoplesium cymosum</i>	✓			
Senegal tea	<i>Gymnocoronis spilanthoides</i> *	✓			
Sexton's bride	<i>Rhaphiolepis umbellata</i>				✓
sheep's bur	<i>Acaena agnipila</i>				✓
skeleton weed	<i>Chondrilla juncea</i>				✓
smilax	<i>Asparagus asparagoides</i> *		✓	✓	✓
snow poppy	<i>Eomecon chionantha</i> *				✓
Spanish heath	<i>Erica lusitanica</i>				✓
spartina	<i>Spartina alterniflora</i> , <i>S. anglica</i> & <i>S. x townsendii</i>	✓			✓
spiny broom	<i>Calicotome spinosa</i>				✓
strangling fig	<i>Ficus microcarpa</i>				✓
sweet briar	<i>Rosa rubiginosa</i>				✓
sweet pea shrub	<i>Polygala myrtifolia</i> * (excl. cv. 'Grandiflora')				✓

<sup>13</sup> Only *Sagittaria montevidensis*, *S. platyphylla* & *S. sagittifolia* are on the 2006 National Pest Plant Accord.

Common Name	Scientific Name	Total Control	Containment	Community Initiative	Surveillance
sweet pittosporum	<i>Pittosporum undulatum</i> *				✓
Tasmanian ngaio	<i>Myoporum insulare</i> * including hybrids				✓
tradescantia	<i>Tradescantia fluminensis</i> *				✓
tree of heaven	<i>Ailanthus altissima</i> *				✓
tuber ladder fern	<i>Nephrolepis cordifolia</i> *			✓	✓
tutsan	<i>Hypericum androsaemum</i> *				✓
variegated thistle	<i>Silybum marianum</i>		✓		
velvet groundsel	<i>Senecio petasitis</i>				✓
water hyacinth	<i>Eichhornia crassipes</i> * §				✓
water lettuce	<i>Pistia stratiotes</i> * §				✓
water poppy	<i>Hydrocleys nymphoides</i> *	✓			
water primrose	<i>Ludwigia peploides</i> * subsp. <i>montevidensis</i>				✓
white bryony	<i>Bryonia cretica</i> *				✓
white-edged nightshade	<i>Solanum marginatum</i> *	✓			
wild broom	<i>Cytisus scoparius</i> (excl. cultivated varieties)	✓			
wild ginger	<i>Hedychium gardnerianum</i> * & <i>H. flavescens</i> *		✓	✓	✓
wild kiwifruit	<i>Actinidia</i> species (wild varieties only)		✓		
woolly nightshade	<i>Solanum mauritianum</i> *		✓	✓	
yellow flag	<i>Iris pseudacorus</i> *				✓
yellow water lily	<i>Nuphar lutea</i> *				✓