

Windy Harbour Weeds Program 2023/24 FY

The Shire of Manjimup partners with the community to responsibly manage environmental weeds in the Windy Harbour 'A' Class Reserve.

From weed surveys and mapping in the settlement and entrance road, the Shire of Manjimup have identified the following invasive species to target for control;

High Priority Weeds

- Victorian Tea Tree, *Leptospermum laevigatum*
- Sydney Golden Wattle, *Acacia longifolia*
- Dune Onion Weed, *Trachyandra divaricata*
- Butterfly Bush, *Polygala myrtifolia*
- Bridal Creeper, *Asparagus asparagoides*
- Black Flag, *Ferraria crispa*
- Three-cornered Garlic, *Allium triquetrum*
- Cape Tulip, *Moraea flaccida*

Medium Priority Weeds

Have been eradicated, but need annual check to ensure new seedlings are controlled.

- African lovegrass, *Eragrostis curvula*
- Spear Thistle, *Cirsium vulgare*
- Flinders Range Wattle, *Acacia iteaphylla*
- Stinkweed, *Dittrichia graveolens*
- Wild Radish, *Raphanus raphanistrum*
- Montpellier Broom, *Genista monspessulana*
- Kangaroo Apple, *Solanum laciniatum*
- Lions Tail, *Leonotis leonurus*



Low Priority Weeds

Should be removed at any opportunity. Not in order of priority.

Agapanthus, <i>Agapanthus praex</i>	Veldt Daisy, <i>Dimorphotheca ecklonis</i>	Taylorina, <i>Psoralea pinnata</i>	Wild Turnip, <i>Brassica tournefortii</i>	Pennyroyal, <i>Mentha pulegium</i>
Fleabane, <i>Erigeron bonariensis</i>	Malta Thistle, <i>Centaurea melitensis</i>	Blackberry, <i>Rubus anglocandicans</i>	Bamboo/Giant Reed, <i>Arundo donax</i>	Mirror Bush, <i>Coprosma repens</i>
Cape weed, <i>Arctotheca calendula</i>	South African Daisy, <i>Gazania linearis</i>	Twiggy Mullien, <i>Verbascum virgatum</i>	Watsonia, <i>Watsonia bulbilifera</i>	Plantain, <i>Plantago lanceolata</i>
Periwinkle, <i>Vinca major</i>	Bindii, <i>Soliva sessilis</i>	Ivy, <i>Hedra helix</i>	<i>Freesia</i> sp.	African Daisy, <i>Arctotis</i> sp.
Norfolk Island Hibiscus, <i>Lagunaria patersonia</i>	Climbing groundsel, <i>Senecio angulatus</i>	Carnation Weed, <i>Euphorbia terracina</i>	Brazilian Pepper, Schinus terebinthifolia	Yellow Glandweed, <i>Bellardia viscosa</i>
Honeymyrtle, <i>Melaleuca armillaris</i>	Field Madder, <i>Sherardia arvensis</i>	Primrose, <i>Oenothera stricta, drummondii</i>	Mediterranean Lineseed, <i>Bellardia trixago</i>	French Lavender, <i>Lavendula stoechas</i>
Black Wattle, <i>Acacia melanoxyton</i>	Fairy Succulent, <i>Crassula multicava</i>	Perennial Veldt Grass, <i>Ehrharta calycina</i>	Wild Sage, <i>Salvia verbenaca</i>	Silver Poplar, <i>Populus alba</i>

Weed species that are too widespread to control and are not causing degradation can now be considered naturalised for example:

- Rose Pelargonium, *Pelargonium capitatum*
- Purple Ground Sorrell, *Senecio elegans*
- Sea Spinach, *Tetragonia decumbens*
- Marram Grass, *Ammophila arenaria*
- Oxalis sp.
- Hypochaeris sp. (Flatweed)
- Briza sp.
- Wahlenbergia capensis

For herbicide treatments refer to the best practise techniques for each species in the Florabase website: <https://florabase.dpaw.wa.gov.au/>

Victorian Tea Tree, *Leptospermum laevigatum*

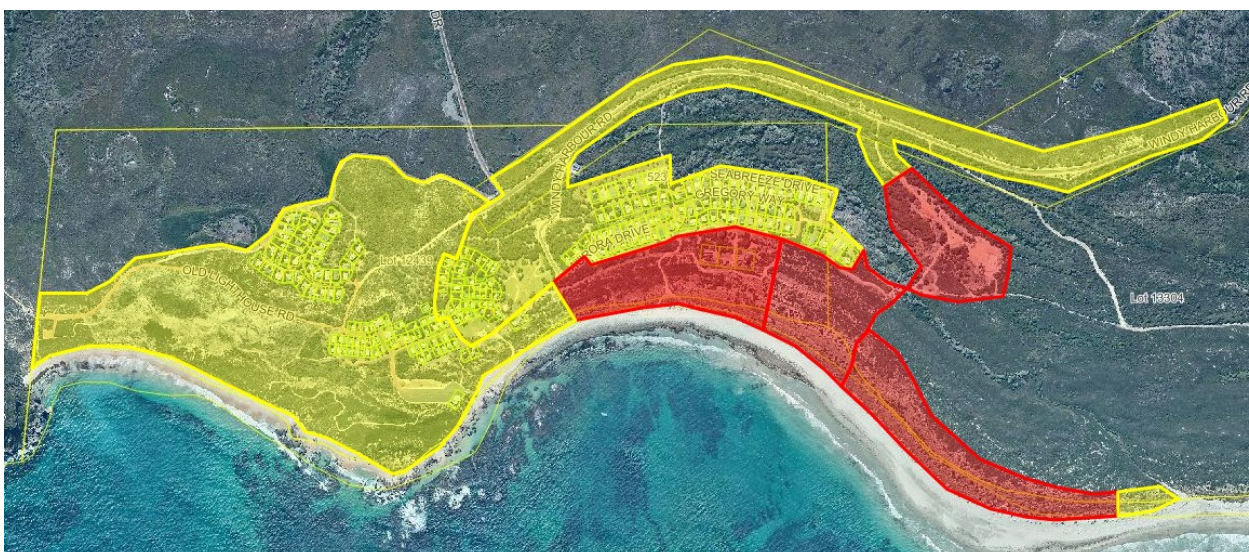


Spread – Seeds are windblown for long distances and are only viable for three years. Flowers from April to October.

Control – Hand pull seedlings. Cut and paint larger plants.

Mapping - Ensure new populations are found before they become established. Monitoring of cleared areas.

June 23 mapping below shows that Victorian Tea Tree (VTT) has been further restricted in the settlement and with ongoing control is able to be eradicated (cleared areas shaded yellow). In 2004 VTT covered 100 ha of the settlement and was thick along Windy Harbour Road. At the end of the 2022/23 FY, VTT flowering plants (shaded red) now cover only 20ha of the settlement and all lease areas and road is clear.



Sydney Golden Wattle, *Acacia longifolia*



Spread – Seeds disperse as pod explodes and are viable for 10 years. Flowers from June to November.

Control – Hand pull seedlings. Cut/ringbark and paint or drill and fill large plants.

Mapping – Monitoring of cleared areas.

June 2023 mapping below at Windy Harbour shows the total coverage has been reduced by 62% to 6ha. Ongoing control and follow up in controlled areas are needed. The yellow section shows the cleared areas where all mature plants have been removed and seedlings need control. The red section shows areas that contain mature flowering plants.



Dune Onion Weed, *Trachyandra divaricata*

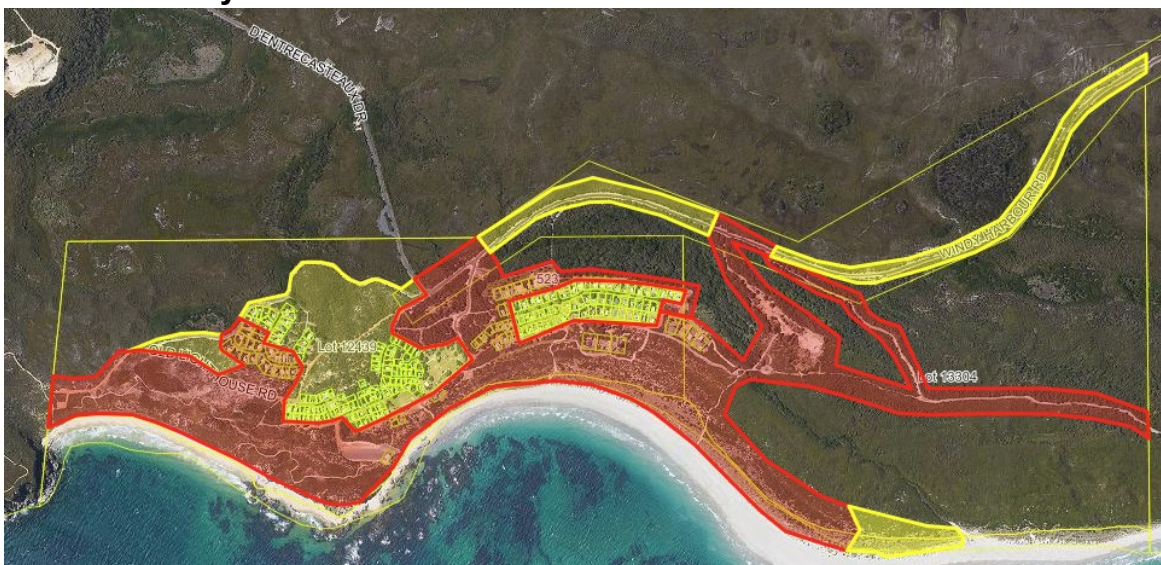


Spread – Seeds heads can be blown by wind. Seed viability is unknown. Flowers throughout year depending on rain. (At what age plant starts flowering is unknown).

Control – Small isolated plants can be dug out; flowers can be cut to limit seed set. Herbicide treatment in autumn before flowering and again in late spring.

Mapping – Checking to see if weed has spread into clear areas.

June 2023 mapping below shows areas that contain Dune Onion Weed in red, and clear areas in yellow.



Butterfly Bush, *Polygala myrtifolia*



Spread – Seeds spread on wind and are viable for 5 years.

Control – Seedlings can be hand pulled. Cut and paint herbicide. Spraying large populations.

Mapping - Define actual spread of population including lease areas.

June 2023 mapping shows approximate locations below.



Bridal Creeper, *Asparagus asparagoides*



Spread – Birds eat the berries and spread the seeds that are viable for 2-3 years. Reshoots in April/May.

Control – Small plants can be dug out, be sure to get the very large tuber underground. Herbicide treatment.

Mapping – All lease areas have been mapped and to be checked each year. Monitor yellow areas.

June 2023 mapping. Yellow shows spread prior to 2012 control. Red shows areas where plants are actively growing.



Black Flag, *Ferraria crispera*



Spread – From corm and seed. Takes two years to flower.
Seeds only survive one year.

Control – Small plants can be dug out. Herbicide treatment
August/September.

Mapping - Define actual spread of population.

June 2023 estimated mapping shown below.



Three-cornered garlic, *Allium triquetrum*

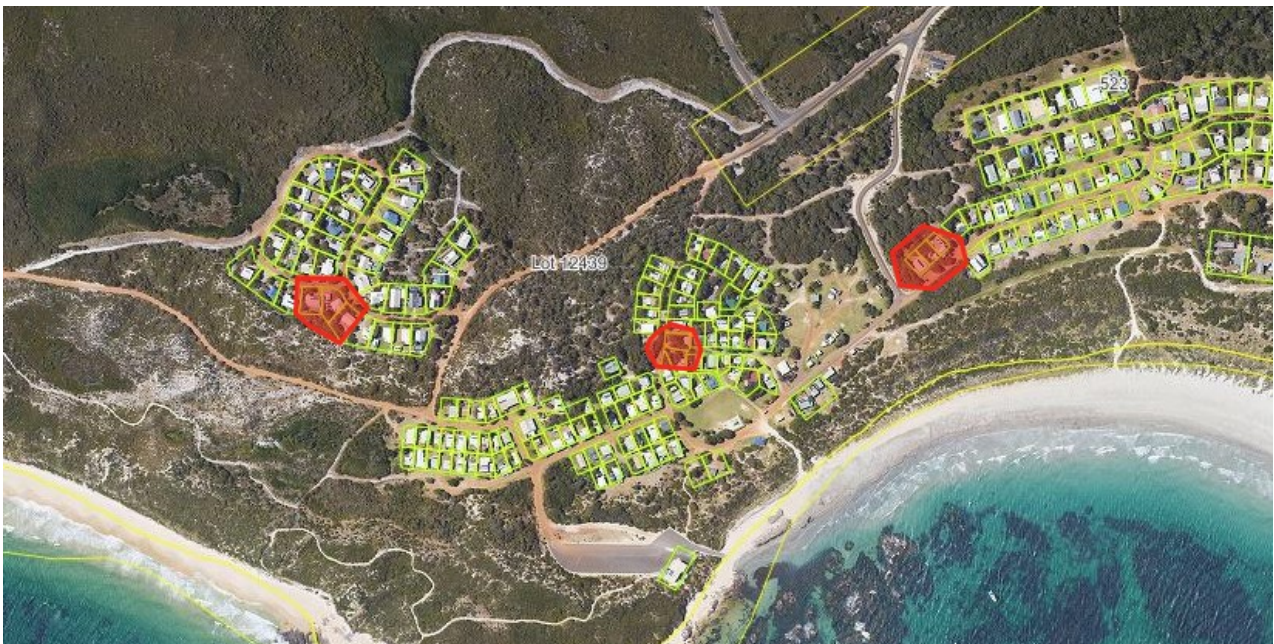


Spread – From seed. Takes two years to flower. Seeds viable from 1-5 years.

Control – Small plants can be dug out. Herbicide treatment.

Mapping - Define actual spread of population. Incursion first observed in August 2022.

June 2023 estimated mapping shown below



Cape Tulip, *Morea flaccida*



Spread – Persistent corm can be spread with soil, seed spread on machinery. Seed bank lasts only 2 years.

Control – small plants can be dug out, be sure to get the bulb underground. Herbicide treatment prior to flowering.

Mapping - Identify new populations. Monitor spread.

June 2023 mapping below shows two new populations that have been found at Windy Harbour over the last three years. Previously considered eradicated.



Windy Harbour Leaseholders

Since 2003 leaseholders have participated in weed identification and control workshops. Lease fees also contribute to annual control of weeds throughout the settlement.

Manjimup Weed Action Group (MWAG)

Manjimup Weed Action Group (MWAG) was established in 2000 to build a coordinated partnership involving the community, agencies, and industry, to protect natural and economic assets through weed control and management. MWAG volunteers undertake weed control and provide expert advice to stop weeds spreading into the Sensitive Environment Areas of the neighbouring D'Entrecasteaux National Park.

Windy Harbour weed management history and funding

A Weed Management Program was first implemented in 2017 as per Windy Harbour Management Plan

Statement 22 – Environmental Weeds

'A weed management program be implemented in liaison with Department of Environment and Conservation and other community groups regarding weed control at the settlement within the limits of resource and budget constraints.'

2021 to 2023 – Shire of Manjimup, Windy Harbour Reserve funds release.

2019 – State Natural Resources Management Program grant.

2019 – Warren Catchments Council, Toast to the Coast grant.

2018 – South West Catchments Council, VTT mulching and eradication grant.

2017 – Warren Catchments Council Busy Bee.

2016 – Warren Catchments Council, Environs Project.

2015 - Federal Government funding - Green Army.

2014 – Shire of Manjimup first mulching of Victorian Tea Tree (VTT).

2012 – Warren Catchments Council Bridle Creeper spraying.

2008 – Warren Catchments Council Busy Bee.

2004 – Warren Catchments Council partner with Shire of Manjimup and DBCA to remove VTT from Windy Harbour Road.

2003 – Warren Catchments Council releases a weed pamphlet.

This Weed Management Plan and the following resources are available to leaseholders to guide plant selection and weed control;

- Preferred flora list for landscaping.
- Weeds, do not plant list
- Native plants for landscaping in Bush Fire Prone Areas
- Dune Onion Weed Treatment Guide