

Final Report to the Commonwealth:

Implementation of recovery actions for priority EPBC listed threatened species and ecological communities in Western Australia

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Department of Environment and Conservation (DEC)**

Project ID 45061439

Title: Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain)

Detailed description of activities: The major activities of this project are weed mapping and weed control within the critically endangered organic mound spring threatened ecological community (TEC) at Neaves Nature Reserve located in Bullsbrook. Each of these milestones is discussed in detail below.

Weed mapping and weed control have been achieved at the mound spring site. The extent of the blackberry infestation, a weed of national significance, has been mapped in the field using a differential GPS, and a map showing its distribution has been produced from this information (refer to attachment). The mapping was completed in December of 2009.

The weed map produced for this site provides valuable baseline data. Future weed mapping can be compared to the original map to determine the effectiveness of the treatment type being implemented within the mound spring occurrence, and to detect a reduction in the density of the infestations over time. The attached map shows the original blackberry infestation and the areas that have now been treated. It illustrates a significant amount of weed control undertaken within the mound spring occurrence.

The method used to control the blackberry is intensive however due to the sensitivity of the site was considered essential. The blackberry biomass was cut by hand and physically removed from the spring. This task was then followed up with chemical application. Once the majority of the biomass had been removed the remaining stems (standing at approximately 30cm high) were cut to the ground and glyphosate carefully applied to freshly cut stems so that the chemical is absorbed by the plant. The chemical was applied by dropping a small amount onto the stem from a squeeze bottle to avoid any off-target damage.

A series of photo points have been established at the site to show visual changes over time. The photos below illustrate pre and post blackberry control at two locations within the mound spring occurrence.



Photo point 1 – pre and post blackberry control



Photo point 2 – pre and post blackberry control

As shown in the photos above the control of blackberry within the TEC occurrence has been extremely successful to date. It is acknowledged that further follow up will be required in subsequent years to achieve complete eradication of the infestation.

As a result of a reallocation of funds from Action 6 in March of 2010 this project received an additional \$9500 which enabled the continuation of blackberry control at this site, resulting in a larger reduction of the area of infestation even further. Due to unfavourable weather conditions in late May of 2010 the weed control works at Neaves NR ceased, with the remaining funds (\$4240) going towards the purchase of plant cages under Action 9 as stipulated in the variation to the contract.

It is worth noting that discussions with the local NRM representative in January of 2010 resulted in the Department of Environment and Conservation securing an additional \$7500 to extend the weed mapping and blackberry control into the adjoining mound spring occurrence on DPI land to the north, to the benefit of the mound spring TEC.

Blackberry distribution within TEC occurrence 'Communities of Tumulus Springs' (Organic Mound Springs, Swan Coastal Plain)

Blackberry on DEC estate

Blackberry on DPI tenure



1:2,000 (A4)



Projection: Universal Transverse Mercator
MGA Zone 50. Datum: GDA94



Produced under the Direction of
Ian Macdonald
Director General, Department of
Environment and Conservation

Produced in December 2010



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Grids are shown at 200 metre intervals

Blackberry distribution & infestations treated within TEC occurrence 'Communities of Tumulus Springs' (Organic Mound Springs, Swan Coastal Plain) at Neaves Nature Reserve, Bullsbrook

- Blackberry on DEC estate
- Blackberry on DPI tenure
- Blackberry infestations treated

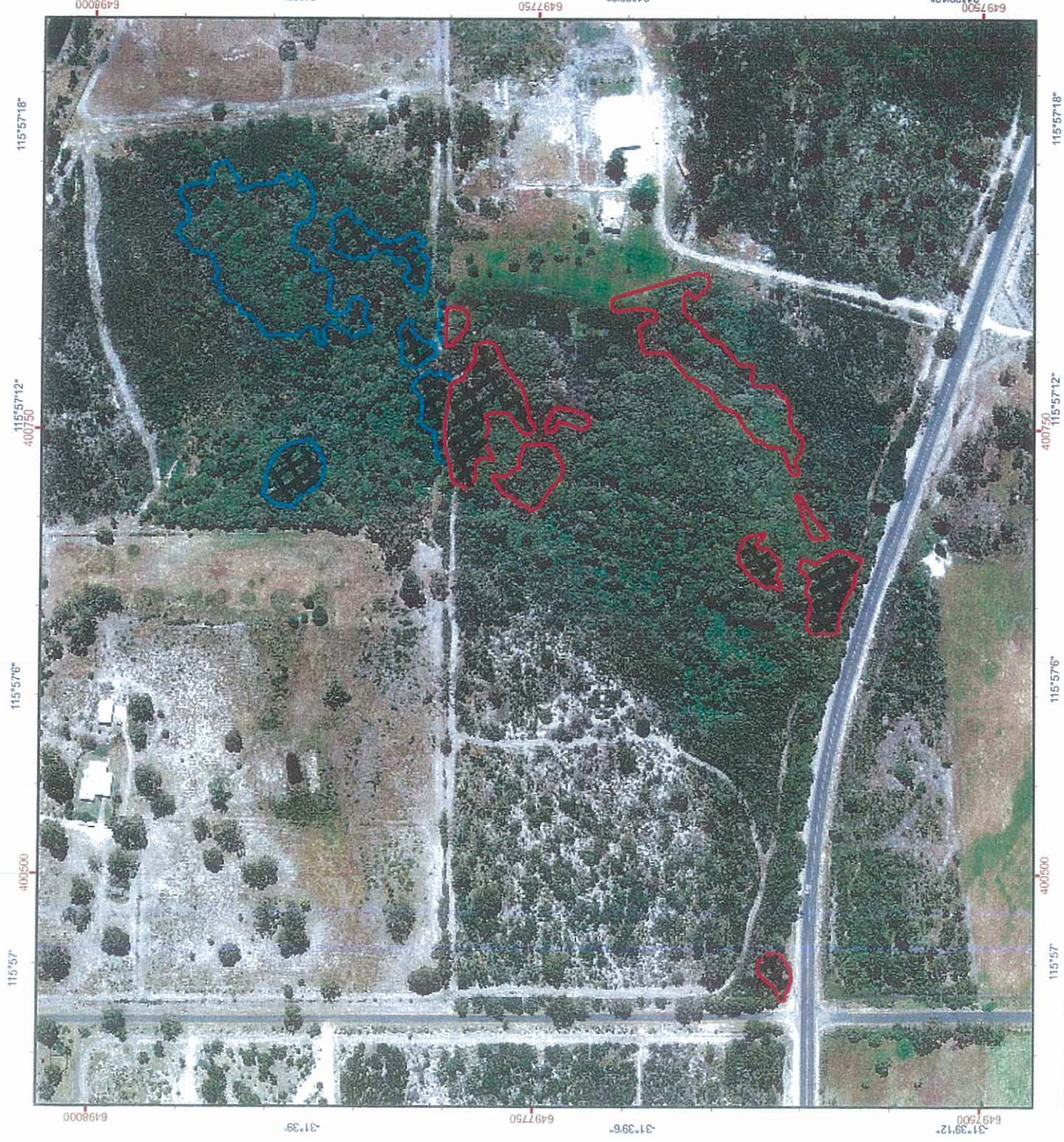


Projection: Universal Transverse Mercator
MGA Zone 50. Datum: GDA94



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Director General, Department of
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Graticule shown at 6 seconds intervals
Grid shown at 250 metre intervals

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