MEAD FOREST MANAGEMENT PLAN

DEPARTMENT of WATER

Plan Prepared by Rose and Bending Forest Services

November 2010

The Department of Water manages a number of land parcels in key water catchments throughout the State.

Mead forest is part of this estate. The management objectives for these blocks is to preserve, protect and, where practical, enhance water resource values associated with the land for potential future water source utilisation, and, where compatible with this objective, to manage native vegetation and plantations in an ecologically sustainable manner to provide forest and timber produce to help offset land management costs.

General

This small, 30 hectare area of native forest was once part of the much larger adjoining farm. It is surrounded by cleared farm land on three sides, and is adjacent to Westbourne Road, to the South. The landform is generally flat, with a slight North facing aspect.

Soils are typical sandy / gravel loams, with lateritic outcropping, grading to sandy loam soils over shallow clay to the North and West.

The forest types are primarily Jarrah (eucalyptus marginata) and Marri (corymbia callophylla), with some scattered Wandoo (eucalyptus wandoo) adjacent to the cleared land to the North and West.

The forest, having been part of a larger adjacent farm, has a history of livestock grazing, and as such it is depleted of understorey.

A lack of understorey makes an assessment of current Dieback status uncertain.

The forest does not appear to have been burnt during the last 10 years.

FOREST DESCRIPTION

The forest is a Jarrah dominant, mature stand, with isolated large Marri.

The current standing basal area stocking ranges from 22 to 30 m2 / ha.

The forest has been selectively harvested for timber on at least two occasions, the last being during the 1960's or 1970's. There is relatively little regeneration resulting from either of the previous harvest operations, possibly due to grazing preventing regrowth development. Trees left post harvest have developed into mature or maturing stems, and are presently healthy.

There are trees (Jarrah) currently growing on site that meet specifications for use as sawlog timber. It is likely that volumes per hectare are in the range of 8 to 10 m3 / ha of merchantable timber resource, equating to 10 to 15 trees per hectare.

Understorey is generally depleted, possibly due to effects of past livestock grazing.

ACCESS

The site is readily accessed being adjacent to Westbourne Rd, and surrounded by cleared farmland.

The perimeter of the site has been cleared to allow vehicular access, but with the exception of the southern boundary is not currently trafficable due to regrowth and fallen branches.

Upgrade will allow ease of future management, particularly fire management.

Care should be exercised to ensure Dieback is not introduced or spread during any track upgrade works.

INVASIVE WEEDS

No invasive weeds were noted. Pasture species encroachment around the periphery of the site, adjacent to cleared farmland is present.

FIRE

The site does not appear to have been burnt during the last 10 years, and there are elevated fuel levels across most of the site.

A prescribed fuel reduction burn will reduce the present threat of intense fire behaviour in the event of wild fire.

Prescribed fuel reduction burning can be planned to coincide with a post harvest timing, which will also remove harvest debris.

RARE FLORA

The forest type at Meads could potentially support caladenia dorrienii, which is found in this region, in Wandoo woodland. A survey to ascertain its presence should be conducted prior to any planned track upgrade, harvest or burning operations.

DIEBACK MANAGEMENT

Due to the depletion of understorey, the Dieback status of Meads is uncertain.

A more thorough survey may determine whether dieback is present. It is possibly more effective, particularly given the small size of this site, and the current access layout to treat the site as Dieback free, and ensure all operations are conducted hygienically, and preferably in dry soil conditions.

A gate or physical barrier at the entry point off Westbourne Road will assist in controlling unauthorised access at other times.

UNDERSTOREY REGENERATION

The forest is currently denuded of understorey (scrub) species, possibly as a result of past livestock grazing.

It is likely that over time some of the species originally present will re colonise the site, due to retained seed banks. However this process will be slow, and not all of the original species represented will regenerate.

The process of re developing an understorey on this site can be enhanced by re seeding the forest with native scrub species. This process can be achieved by broadcast spreading seed and fertiliser throughout, preferably after a prescribed burn, which will create an ash bed allowing enhanced germination.

An examination of nearby similar forest types will identify those species most likely to have existed prior to the introduction of livestock grazing.

SILVICULTURE MANAGEMENT PLAN

The forest type at Meads is a mature stand of Jarrah / Marri, typical of stands in lower rainfall zones.

The site has been harvested at least twice, with no timber harvested during the last 30 to 40 years.

Most of the merchantable timber on site was already present at the time of last harvest, but with subsequent growth, and a change in log specifications over time, small volumes are currently available.

Any harvest would be a light selection cut, targeting commercially viable stems, and aiming to reduce standing basal area stocking to no lower than 15 m2 / ha. Given current standing basal area stocking of 22 to 30 m2 / ha, that will be achievable.

Regeneration post harvest will probably not be significant, as the forest is effectively being very lightly thinned. Some isolated regrowth will result in any small gaps created, or along snig tracks.

A post harvest burn will remove debris, and enhance the development of regrowth where it occurs.

Habitat trees suitable as fauna refuge need to be identified and retained at the rate of five per hectare, and they, along with other remaining trees require protection from damage during harvest.

HARVEST PLAN

Given the small size of this site, there is no requirement to create new access for log timber removal.

Selection and marking of trees intended for cutting will allow control over intensity of harvest, and also in planning snig track alignment, and retained tree protection.

Trees intended for felling should be marked for direction of fall, to reduce damage to other trees, enhance gap creation where possible, and ensure debris build up adjacent to retained stems is avoided.

Approximately 10 to 15 trees per hectare will be removed during harvest, equating to approximately 150 -200 m3 of log timber in total.

DIEBACK MANAGEMENT

Dieback status is uncertain due to insufficient understorey indicator species.

It should be assumed that the site is dieback free, and measures taken to ensure that introduction is avoided.

The most effective method of avoiding introduction is to limit operations involving vehicle or machine entry to dry soil only. Any machinery entering the site should be thoroughly cleaned of soil prior to entry, to reduce the risk that soil adhering to equipment is infected.

Post harvest a system of controlling unauthorised access by gates or physical barriers will help to limit the risk of disease introduction.

Appendices.

1. Site Map, Meads Forest.

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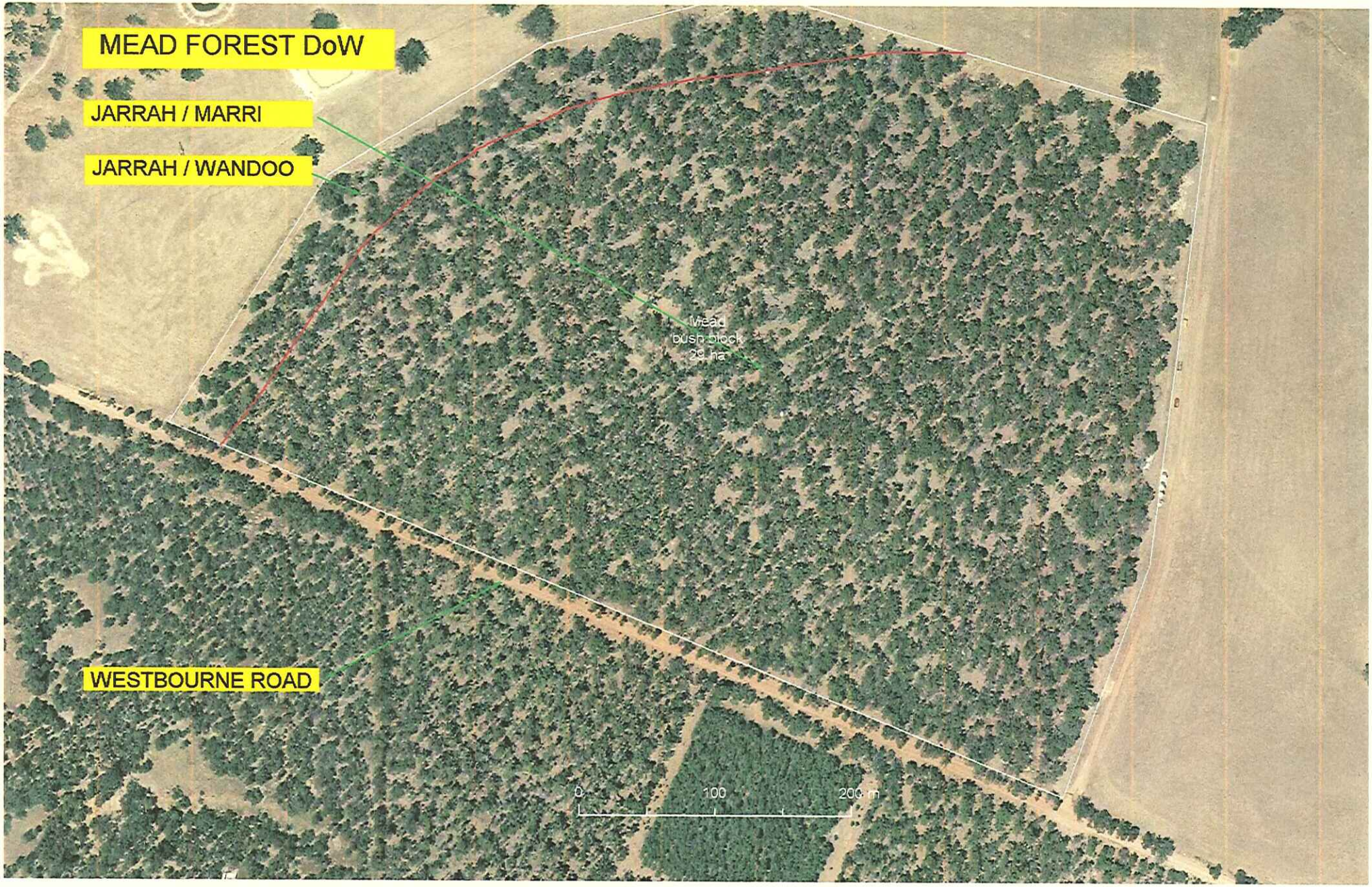
MEAD FOREST DoW
JARRAH / MARRI
JARRAH / WANDOO
Mead
bush block
29 ha
WESTBOURNE ROAD
0
100
200 m